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PACIFIC FISHERMAN

October 1960

STAR-KIST in strategic PUERTO RICO

Page 7

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OCT 27 1960

THOMAS W. CRUMP, left, and ROBERT K. PEDERSEN

ce 50 Cents

"COLUMBIAN ROPE is first choice of fishermen in my part of the world, too"

reports Jeronimo E. Gonzales Robles, Jefe de Bahia, Pesca Mar, S.A., Callao, Peru. Mr. Gonzales is shown at left.

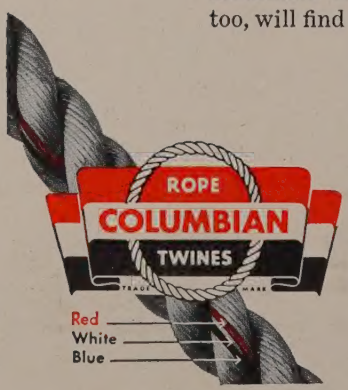
Pesca Mar, S.A., operates a fleet of twenty-six boats, and is one of the larger operators in the Peruvian fish meal industry. At right, is the 78' "Tacna"—their latest addition. This is a 140-ton capacity "adequate" boat built by Astilleros Jorge Labarthe, S.A., Pesca Mar, S.A., and is owned by Luis Banchero Rossi.

"We now use Columbian Manila Rope exclusively on all our boats,"

Mr. Gonzalez continues. "It is very strong and durable, well suited to our purpose, and gives us the results we want. We keep a big stock on hand here at Pesca Mar, and of course, rig all our new boats with Columbian Ropes."

In a big operation like Pesca Mar, S.A., large quantities of rope are required to supply the fleet. It's especially important to use rope that has maximum strength . . . that gives long wear. Like Pesca Mar, S.A., you, too, will find that Columbian ropes make for better fishing and better profits.

In Peru — see Adriatic Business Co., S. A. — Lima, Peru
Everywhere Else — See your nearest Columbian Dealer.



COLUMBIAN Rope Company

Auburn, "The Cordage City," New York

Columbian Nylon Rope is made by the manufacturers of the famous Columbian Manila Rope with the red, white, and blue markers.

PACIFIC FISHERMAN

Our Fifty-Eighth Year — October, 1960 Vol. 58 No. 11

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Good News for the Fisheries of Canada and United States

● Good news for the fisheries broke just at presstime of this issue in the announcement that Canada and the United States had reached an understanding in which they will draw a treaty for sharing the benefits of upper Columbia River development for power.

Details are not immediately available, but are not important to the fisheries. Agreement, regardless of its terms, will safeguard the Fraser salmon resource far into the future. Thus:

1. It will forever dispose of the project for diverting water from the headwaters of the Columbia into the Fraser system, with a series of dams on the Thompson which would destroy the Adams River run.

2. It will meet British Columbia's power need promptly and at minimum cost, obviating any need for damming the main stem of the Fraser in the foreseeable future.

A less distinct benefit may acrue to the fisheries of the Columbia River by sharply reducing the urgency of further power development adversely affecting the salmon resources native to the Snake and Salmon River tributaries.

Albacore Fishing Good, All But the Price

● As the time for the end of the Albacore season in Southern California drew near, fishing remained fine. Weekly landing reports showed this year is consistently better than last. The third week in September, for instance, yielded 791 tons in 1960 as compared with 681 tons in 1959—an increase of 110 tons or nearly 17%.

But the fish seemed to be moving north. Of the 749 tons received by Terminal Island canneries, about 50% was said to have come in trucks from the Monterey-Moss Landing areas; and there were reports that Albacore was running even better in more northern latitudes.

Sept. Sardine Bonanza For Southern California

● The fourth week-end in September saw a sudden, spectacular sardine Bonanza in Southern California. The 2300 tons landed on Saturday, September 23 were by far the biggest day's catch of the season, and this splendid fishing was accompanied by a strengthening of the world market for fish meal, so that Terminal Island processors were accepting fish.

Sardine tonnage delivered to Southern California canneries to the end of September was running about 10 times that received to approximately even date in 1959, although still far below 1958 production to that period.

The Cover Photo

● Two men largely responsible for the operations of Star-Kist Caribe, Inc., which this fall began tuna packing operations in Puerto Rico are shown in our cover picture, standing in front of the plant's cold storage, facing out to the Caribbean. They are Thomas W. Crump, on the left, president of Star-Kist Caribe, Inc., and Robert K. Pedersen, assistant to Nicholas F. Trutanic, vice president, operations, Star-Kist Foods, Inc., Terminal Island.

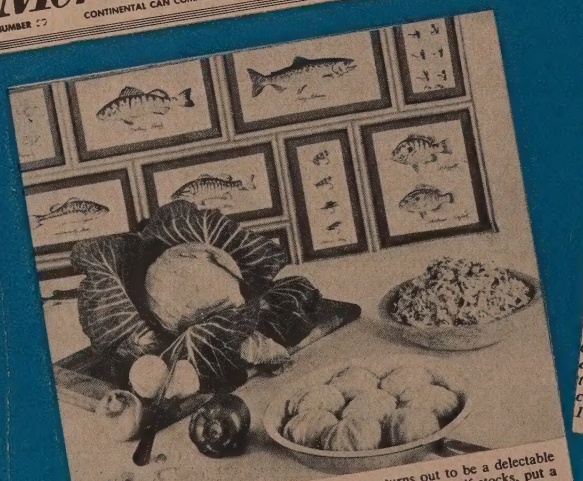
Mr. Crump is responsible for the plant's operation; and Mr. Pedersen devoted much of his time to it during the period of its construction as the newest and most advanced tuna cannery in the world.

Fish can't talk

CANNED FOODS

Merchandiser Digest

NUMBER 22 CONTINENTAL CAN COMPANY, 100 E. 42nd ST., NEW YORK 17, N. Y.

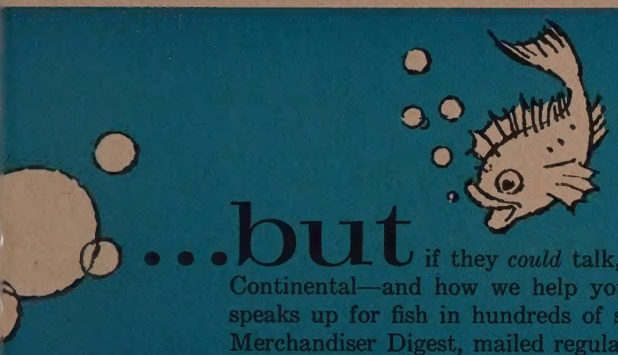


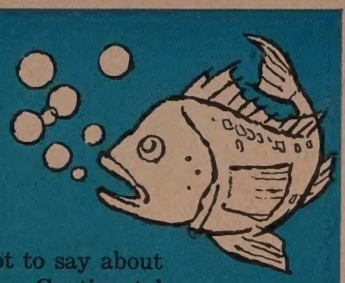
Cabbage, when combined with canned salmon, turns out to be a delectable main course dish or salad. In addition to regular salmon shelf stocks, put a dozen cans in with your cabbage. A home-made sign suggesting the combination should be the clincher.

PROMOTION Pointers

The time to spotlight your complete line of canned fish and fish specialties is during the "Fish 'n' Seafood Parade," October 19-25! National magazines, newspapers, radio and TV will carry a flow of new, exciting recipes.

To start sales rolling, the following point-of-sale material is available: (1) A 6-color ceiling mobile featuring three appetite-appealing fish dishes; (2) Six diecut paper posters; (3) A four-color window-poster featuring the theme of the promotion. Newspaper mats and shelf stickers are also available. For complete details, contact: National Fish and Seafood Week Committee, 1614 Twentieth Street N.W., Washington 9, D. C.





...but if they *could* talk, they'd probably have a lot to say about Continental—and how we help you sell fish in the food store. Continental speaks up for fish in hundreds of sales-making ways—in the Canned Foods Merchandiser Digest, mailed regularly to 100,000 supermarket operators and headquarters buyers throughout the U. S. . . . with newsletters to brokers . . . with tips and recipes to newspapers, magazines and home economists.

Here you see some of our recent efforts on behalf of our speechless friends from the deep. Continental spurs these promotions—for tuna, salmon, and other varieties—every day, week, and month of the year.

CONTINENTAL CAN COMPANY

Russ Building, San Francisco 4
1120 Wilshire Boulevard, Los Angeles 17
Executive Building, Portland 4
601 Myrtle St., Seattle 8

TUNA *(Tests conducted over an 18-week period)*

None of the three multiple packaging combinations used resulted in significant sales gains when compared to single cans alone. However, the sales increase of 5.6% obtained with the 3-pack plus singles approached significance. An increase of 7% was required.

Average Sales Per 1,000 Checkouts (No. of Containers)

Single cans	108
2-pack plus singles	113 (4.5% increase)
3-pack plus singles	114 (5.6% increase)
4-pack plus singles	106 (1.9% decrease)

Set a course for big volume by tying-in with the biggest promotion yet on behalf of fish and seafood! It's the "Fish 'N Seafood Parade" which runs from October 19-25. National publicity will carry a flow of new recipes in national magazines, newspapers, on radio and TV

For further details and available point-of-sale material (mobile, 7 posters, ad mats, shelf stickers), contact the National Fish and Seafood Week Committee, 1614 20th Street, N.W., Washington 9, D.C

Tuna's always timely. Start with a basic display (this one in a California market sold between 20-25 cases in one week). Then, add related items to fit the season – noodles, rice, pimentos, etc., for cold weather casseroles; mayonnaise, olives, etc., for spring and summer salads and sandwiches.

"WITH OUR CAT D342, WE GET MORE FISH TO MARKET FASTER AND IN BETTER SHAPE"

This is the kind of performance that makes the fishing business good for Captain Nels M. Lee, owner-skipper of the 72-foot *Nordby*. And Captain Lee should know, for he has been master of the *Nordby* since it was built in 1928, 32 years ago. Here's what he says about the Caterpillar Marine Engine on his vessel: "In July of 1958, we installed a D342 Turbo Caterpillar Diesel in our 72-foot fishing vessel *Nordby* and have had nothing but satisfactory performance.

"With our Caterpillar, we can make 20 extra nautical miles for each 24-hour day, going to the banks and returning to market. This helps the boat get to market sooner and this is always important.

"The *Nordby* makes about four halibut fishing trips a year to the Area Three banks in the Gulf of Alaska and Portlock Bank. This season begins about the first of May and ends usually in the latter part of August, under International Fisheries Commission regulations. When not halibut fishing, the *Nordby* engages in tuna fishing and 'scrap' fishing for cod off the Washington and Oregon coasts.

"You don't have to oil the Caterpillar Diesel, just change oil every 240 hours. You don't have to be an expert diesel engineer any more, for the Caterpillar is easy to start. Just push the button and she's off.

"Since we installed our Caterpillar Diesel, we have never failed to complete a trip, and we get the fish to market faster and in better shape, which means more dollars for us."

Modern Cat Engines are available from 62 HP to 600 HP (continuous ratings). Your nearby Caterpillar Dealer can recommend the correct engine or Caterpillar Electric Set for your boat. Twelve Caterpillar Marine Electric Sets are available up to 350 KW capacity in 50 or 60 cycle operation, AC or DC, single or three phase. You can save money with Caterpillar Marine Engines . . . and make a better living, too.

Captain Nels M. Lee, owner of the Nordby, is from Seattle. His vessel is a well-known unit of the Seattle fishing fleet.

MARINE POWER BY CATERPILLAR

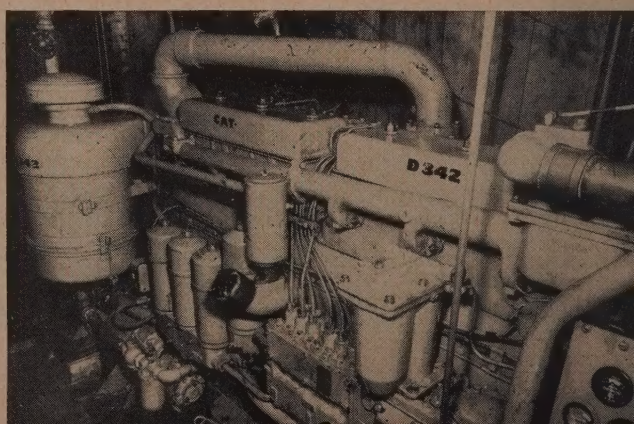
CATERPILLAR

Caterpillar and Cat are Registered Trademarks of Caterpillar Tractor Co.

Engine Division, Caterpillar Tractor Co.,
Peoria, Illinois, U.S.A.

The Cat D342 gives the 72-foot Nordby a speed of 9.75 knots in 24-hour service with fuel consumption of about 10 gallons an hour.

The Turbocharged Cat D342 Marine Diesel, shown here in the Nordby's engine room, is rated 220 HP @ 1225 RPM (continuous). Its low over-all cost an operating hour and minimum of down time prove it to be an ideal engine for vessels of this size.



PACIFIC FISHERMAN OCTOBER, 1960

Tuna Price Confusion Puts Brake on Calif. Deliveries

● The California tuna situation last month was about the most undecided thing that anybody could imagine, or even invent.

A price controversy was going on between canners and boat-owners, but despite this difference the canners were buying fish from the boat-owners. So it seemed that although the parties could not agree on price, they couldn't even agree to disagree, and business was being done without either side agreeing with the other.

The disagreement began in August, when Star-Kist Foods Inc., in view of the world tuna price, announced a new and lower schedule of prices for Skipjack and Yellowfin tuna. The vessel owners, claiming that even the former prices of $210 and $250 per ton respectively were too low, declined to release their loads at the new prices.

There followed an almost complete tie-up of the entire tuna fleet, including clippers, converted seiners and standard seiners, and for several weeks no fish were unloaded. Van Camp Sea Food Co. inevitably announced its own new prices, also lower than the former $210-$250.

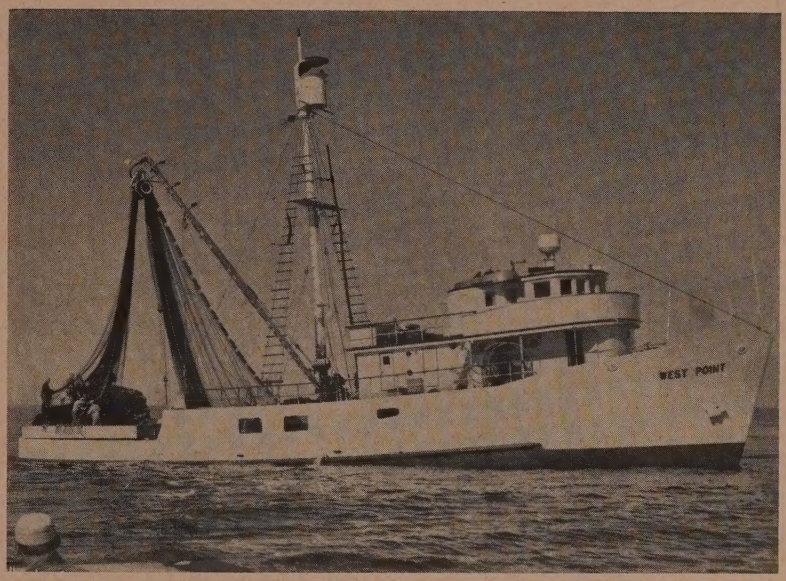
The deadlock persisted through numerous negotiating sessions, as the vessel owners showed unusual unanimity in holding their price line. The labor unions whose members man the vessels in the fleet lent moral support meanwhile to the vessel owners. Boats in port remained unloaded, and those coming in tied up without unloading, until the quantity of fish held in refrigerated holds in the harbors of Los Angeles and San Diego climbed toward the 7000-ton mark.

Unloading Is Resumed

● Early in September, as the need for fish to pack asserted itself, the canneries began to unload vessels, at the old $210-$250 prices. This, however, was only to fill a need, and cannery spokesmen held to the position that the existing prices were too high and a readjustment was inevitable. And while they agreed to unload boats in the harbor, they declined to agree on price in advance with vessel owners who wanted to go back fishing.

As one cannery spokesman phrased it, the vessel owners were holding the price line at the cost of a slow unloading and unsettled prices for future catches.

This is the way matters stood as this issue of *Pacific Fisherman* went to press. Unloading is now speeding up somewhat, but so far very few vessels have gone back fishing, and those few have sailed on conditions unknown to anybody but the contracting parties.



The Hanken-Jangaard seiner-converted-from-tuna-clipper **West Point,** which was the American pioneer of Albacore seining, fishing Longfins off the Columbia River in September, where she shared the schools with three trail-blazing Canadian seiners. This picture was taken in California waters.

Sardine Boats Involved

Two sardine boats became involved in the tuna controversy at one point. The three San Pedro labor unions, seeking to get their members' views on where the unions should stand, called in all vessels to tie up for a day of union meetings. But two vessels manned by members of one of the unions either didn't hear the order or disregarded it, and came in to unload. They were prevented for a time from doing so, by picket lines.

The California Department of Fish and Game then came into the picture, demanding that the sardines aboard the boats be unloaded promptly to avoid spoiling, and for several hours tempers were high while the question was being argued. The vessels finally unloaded.

USSR's Bering Sea Moves Inject New Note Into INPFC Conference

● International conservation of the North Pacific fisheries brings the United States, Canada and Japan into conference at Vancouver, B. C., early in November, with the Soviet Union observing closely — perhaps more closely than ever before.

This month—about the middle of October—scientists of the three nations now participating in the International North Pacific Fisheries Commission begin presentation of their year's work; their conclusions; their opinions of the other nations' findings; and their ideas as to the course which the studies of 1961 should follow.

After these scientific meetings have run their course for about two weeks, and the committee on finance and administration has met for a week, the commission as a whole will be convened in plenary session by George R. Clark, deputy minister of fisheries of Canada, this year the INPFC chairman.

Participation Is New Problem

● There can be no gainsaying the fact that, in addition to the long-standing problem points of the *location of the Provisional Line* (now 175° West Longitude), and *Qualification for Abstention* of fisheries from which Japan has agreed to abstain, there will be a third point of commanding interest: *Participation.*

Obviously, this means the problem of providing proper conservation measures for the ocean fisheries of the North Pacific while only three out of the four nations importantly concerned in the utilization of the ocean fisheries resources are engaged under the treaty in the international undertaking to do so in accord with sound rules of conservation and maximum yield at a level which can be sustained from year to year.

The problem has been recognized by the realistic for years, but now is brought into sharper focus than ever before by the expansion of U.S.S.R. operations in eastern Bering Sea; and particularly by the appearance of a new fleet organization in more southerly waters, fishing on the King crab grounds, the Bering Sea halibut banks, and in the path of the Bristol Bay salmon migration a short distance above the Aleutian Chain and the Alaska Peninsula.

Subsequently Soviet vessels were observed in the Gulf of Alaska, apparently on a prospecting rather than a commercial fishing mission.

In these last two steps, onto the halibut grounds above the Aleutians, and onto those of the Gulf of Alaska, the Soviet operations have become of direct concern to Canada as well as to the United States; and to this fact may be ascribed a part of the increased sharpness with which North Pacific Conference attention may be expected to focus on this problem of *Participation.*

. . . "While the Getting Is Good"

Japan, after restricting its King crab operations in eastern Bering Sea for a number of years in the interests of conservation—while the American operators did the same—in 1960 granted permission for a second King crab fleet unit to enter the area. Reason given for abandonment of Japan's previous concept of King crab conservation was that, as the Soviet Union was moving into the crab fishery of eastern Bering Sea, Japan was warranted in increasing its exploitation while the resource lasted.

This action would appear to be of concern to the North Pacific Commission, which for years has been conducting scientific investigations which generally tended to indicate the King crab population there could sustain a fishery at the level existing before 1960, leaving the implication that increase to the intensity of fishing applied in that year would be destructive.

Does Soviet Want In?

● Soviet Russia, at its own request, has had observers present at a number of the INPFC conferences in recent years; but the U.S.S.R. has never indicated a desire to adhere to the convention.

In fact, on one occasion at least, the Soviet has indicated that it already was associated with as many international fishery conventions as it cared to be.

Direct request for participation in the convention on the part of the Soviet Union is not to be expected; but there can be no question that the Vancouver conference will provide occasion for discussion, perhaps quite unofficially, among the three member nations of this matter of *Participation,* and the implications with respect to it of the increased Russian and Japanese operations on the Bering Sea King crab and halibut banks, and in the pathway of the Bristol Bay salmon run.

Abstention Is Paramount

● There is a feeling among close observers, and particularly those with the industry point of view, that questions concerning *Abstention* and the qualifications for it will be of foremost concern to the Vancouver conference, probably assuming much more prominence than those relating to the *Provisional Line* and its location.

It will be recalled that last year the American Section, facing-up to facts disclosed by its latest scientific studies, voluntarily moved that stocks of herring occurring on the high seas be removed from the list of fisheries from which Japan abstains; and this was done during the year.

Japan did in fact fish herring commercially with midwater trawls, and perhaps other gear, in the area north of the Aleutians in 1960; and is reported to have conducted some exploration of the possibilities of herring fishing in the Pacific much further south and east.

U. S. Section Meets

● The four commissioners composing the United States Section of the INPFC — Milton E. Brooding, Edward W. Allen, John H. Clawson and Arnie J. Suomela — met in executive session in Seattle September 15 and 16.

The Section's Advisory Committee did not attend, but the commissioners did call in a number of advisors and specialists.

Salmon Canners Convene At Ojai, Nov. 16-18

Annual convention of the canned salmon industry's Association of Pacific Fisheries will be held at the Ojai Valley Inn, Ojai, Calif., Nov. 16 through Nov. 18.

As in the past, the first two days of the convention will be devoted to the annual golf tournament, followed by a one-day business session.

Star-Kist Caribe office and employes service wing, which includes a cafeteria accommodating 400 and the washroom facilities. Parking is provided for more than 100 automobiles. Masts in the left background show two large tuna fishing vessels discharging at the face of the wharf.

Star-Kist Caribe— In Strategic Puerto Rico

• Prompted by the expanding world market for canned tuna products, Star-Kist Caribe, Inc., is beginning operations this season in Puerto Rico with the first great tuna cannery to be built in the world since 1952.

This new plant is at Mayaguez, third largest city in Puerto Rico, located on the sheltered west coast (incidentally, at the spot where Columbus landed on the island some 470 years ago).

Prototype of the new Mayaguez cannery is the Star-Kist Foods, Inc., Plant No. 4 on Terminal Island, California, which is acknowledged the most notable of modern tuna packing plants. However, while the new Mayaguez facilities are modeled after Plant No. 4 in some respects, there are incorporated a number of improvements bringing up-to-the-minute, in terms of practical effect, the results of the finest engineering and architectural thinking, together with cannery experience, in answer to the specialized problems of tropical fish packing.

Most interesting of the innovations represented are those which are developed because of the environment.

Among the demands imposed by the environment were these:

The new plant at Mayaguez must resist alike tropical heat, tropical hurricanes and torrential downpours.

Must be proof against corrosion and rot—a plant built to last for decades.

Maintenance must be minimal.

Working conditions must be conducive to employee happiness and productivity; and must be supplemented by facilities making employment at Star-Kist Caribe, Inc., attractive. (Actually Star-Kist Caribe is a blessing for Mayaguez since it will provide employment during peak operations for about 500 people).

In view of these pre-requisites, the specifications for equipment which were planned for and achieved in the building of the new plant included numerous notable features.

Construction and Design

• The plant site, consisting of 8.25 acres is an irregular five-sided area fronting on the open sea of the Mayaguez roadstead. The outer one-third was reclaimed from the sea by dredged fill behind a steel piling bulkhead. The entire site was raised by dredging to 9.5′ above sea level.

Plant foundation consists of Douglas fir piling clusters capped with concrete under each bearing column of the two main structures, the cold storage, processing and warehouse building; and the can re-forming and storage building.

All columns are reinforced concrete, tied together at ground and roof lines by bond beams 24″ deep, and generally with intermediate beams at the window top level.

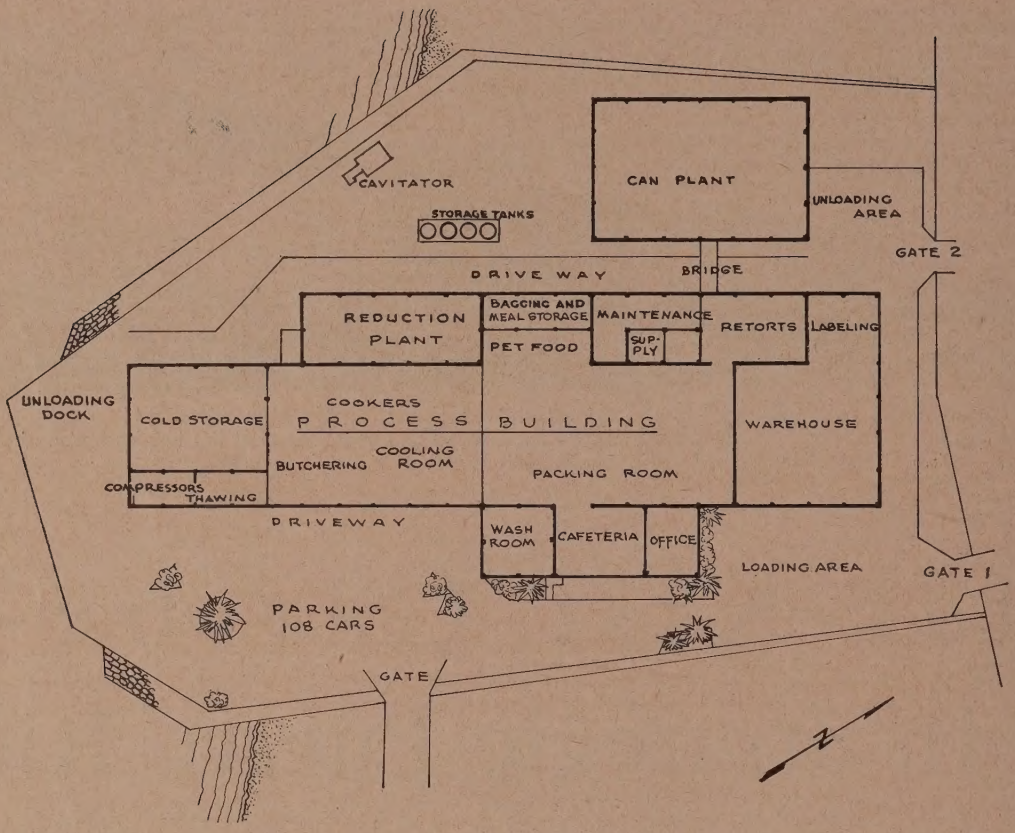
Roof profile is low to avoid the destructive aerodynamic lift which may result under hurricane conditions. Construction is very heavy for the same reason. Roof beams are pre-cast, post-stressed, tied together with pre-cast, pre-stressed purlins on 9.5′ centers. The purlins support 24″ wide pre-cast tongue-and-groove roof panels. All exposed reinforcing steel is welded to matching members, and then all steel is covered by concrete grouting.

The entire roof is weather-proofed with four-ply felt, asphalt and gravel roofing.

Curtain walls are all hollow ceramic tile, finished with resistant cement plaster designed to make painting unnecessary, either inside or out.

All window openings are equipped with jalousies.

The only actual glazed windows in the plant are those in the office, and



Star-Kist Caribe cannery property in plan. Main building is 630′ in length, with maximum width of 240′. The plant site comprises 8.25 acres. Building of the separate can plant is 120′ by 180′. Cold storage is 90′ by 120′ and 17′ high, giving 165,000 cu. ft. of usable refrigerated space.

they are green tinted Plexiglas ⅜" thickness, instead of plate glass, a safety provision in the event of hurricane.

The main structure is 630′ in length.

Width in the cold storage section is 120′. In the main operating section the width is 180′, and this is increased to 240′ by the extension for offices and employee facilities.

Paved parking is provided for automobiles.

The can reforming and storage building is 120′ by 180′, connected with the upper level of the cannery building by a bridge for the can conveyors.

The 60 by 180′ office and employee facilities extension of the main building include, beside the company offices, first-aid and infirmary facilities; a cafeteria capable of seating all employees; and dressing rooms.

Cold Storage Design

● The Star-Kist Caribe fish dock is bulkhead type with 200′ face and a minimum depth of 20′ of water, sufficient for all fishing and fish transport vessels.

The cold storage division, 90 by 120 by 17′, giving approximately 165,000 cu. ft. of actual usable refrigerated space, is located immediately shoreward of the vessel moorings, with two doors opening on the dock and another into the thawing area.

The cold storage is divided longitudinally into two equal spaces, with doors opening between. All doors are manufactured by the Jamison Cold Storage Door Co., the exterior doors being of the automatic type, opened and closed by photo-electric cells. Inside doors are of the flapper type, which are thrust open by the jitneys in passing.

Fork trucks for use in the cold storage are all electric.

The cold storage building is of the same reinforced concrete and ceramic tile construction as the remainder of the plant. The ceiling of the refrigerated rooms is suspended below the concrete roof structure, the space being vented on either side for air circulation. Ceiling material is 2 by 6" tongue-and-groove lumber with 7" of Armstrong corkboard laid on top in asphalt. Exterior walls of the cold storage are insulated with 7" of Armstrong corkboard laid in hot tar against the hollow tile structural walls, with a white plastic vapor seal on the interior surface. Vertical 2 by 4" and horizontal 1 by 6" dunnage is provided on interior walls to assure air circulation space around the fish in storage, and to protect the insulation from damage by the fork trucks.

●

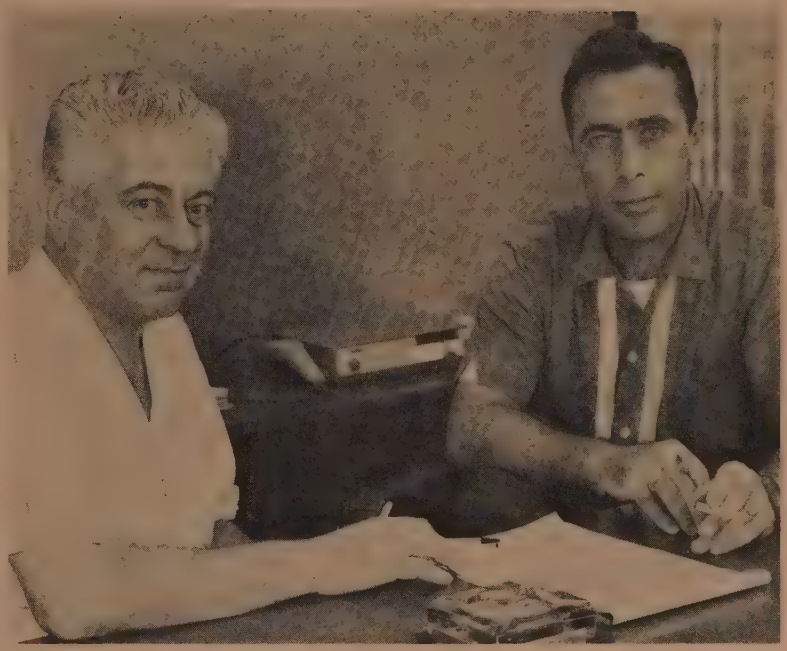
Photography by McFerran

● All photographs accompanying this article on the new tuna cannery of Star-Kist Caribe, Inc., at Mayaguez, Puerto Rico, are the work of **Frank McFerran,** an accomplished commercial photographer of that Caribbean city. In addition to being a successful and capable photographer, Mr. McFerran is a dedicated yachtsman, who built his own vessel from plans by William Garden, Seattle naval architect.

This dunnage, with the suspended ceiling of the cold storage rooms, is the only lumber used in the entire Star-Kist Caribe establishment.

Floor construction of the cold storage is unusual, and provides a good example of the careful engineering which has gone into the entire project, and also evidence of the long-term service for which the plant was built.

Even though the plant is situated in the tropics, provision was made to prevent freezing of the soil under the refrigerated structure. As the concrete subfloor slab under the cold storage is only a few feet above sea level, and eventual freezing below this slab would result in heaving the floor and distorting the building, 8" concrete vent pipes were laid in the soil 30" below the subfloor. Air intake for these pipes is through a header drawing warm air from the plant's compressor room. The pipes are 7' apart and run under the entire cold storage structure. The subfloor slab 30" above them is 6" thick, of reinforced concrete, on which is laid 6" of corkboard, above which is a 6" concrete floor.



Star-Kist Caribe Management—Thomas W. Crump, president, on the right, pauses in conference with John P. Tripps, vice president.

Refrigeration System

● Star-Kist Caribe refrigeration is provided by an installation of six identical Vilter 8-cylinder compressors. These are Vilter Model 438-R, with 4½" bore and 3½" stroke, and operating at 1,000 rpm.

Two of the compressors are powered with 100-hp. motors. Three compressors with 75-hp. Sterling motors refrigerate the cold storage. The sixth unit, with a 75-hp. motor, is in reserve, and may be employed in case of need.

Refrigerating capacity of the three compressors assigned to the cold storage is rated to carry the necessary cubic feet of cold storage space at 0°F. under the tropical conditions prevailing.

The refrigeration system uses Freon 22, a non-toxic, high efficiency refrigerant. The compressors have forced-feed oil to all bearings, and are equipped with a safety cut-off switch which operates if oil supply fails. All of the compressors start unloaded, and each has an oil separator for removing oil from the refrigerant.

Actual refrigeration of the cold storage space is by means of air circulation through 8-row dry expansion type coils which are rated at 615 tons of capacity each. The units are six in number, each 12' in length. Five fans pass air at the rate of 15,000 cu. ft. per minute through each coil unit. The coils were all furnished by Frigid Coil Co., El Monte, California.

Installation of the refrigeration system was done by Eugene P. McDonald, head of Eugene P. McDonald, Inc., Mayaguez, P. R., the Vilter distributor for Puerto Rico and Central America. He is a member of the American Society of Refrigeration Engineers and for many years has been prominently identified with cold storage and freezer installations on the Pacific Coast, in fish plants, on fishing vessels, and in numerous other fields. He has established his headquarters at Mayaguez and henceforth will operate from that center.

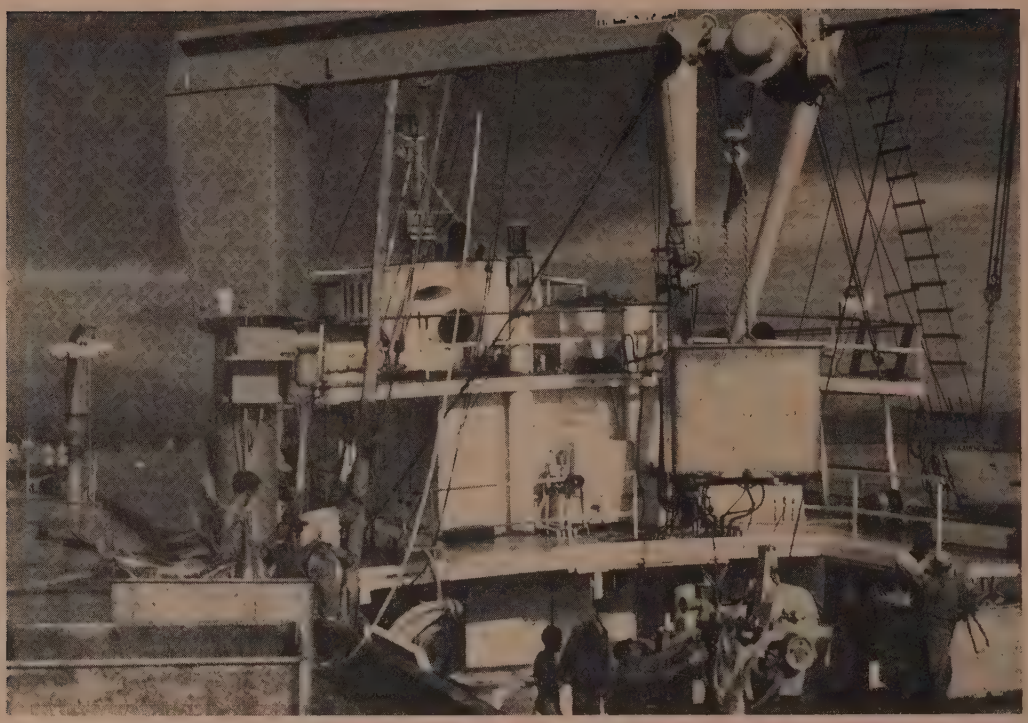
Two 8" vertical Fairbanks-Morse pumps supply 1,000 gpm. each to the refrigeration condenser, fitted with nickel-copper "admiralty metal" tubes. Excess sea water is provided for coarse spray in thawing fish, if it should prove necessary.

Mary Soto, quality control supervisor at Mayaguez, where as in all Star-Kist operations, control of quality is a basic responsibility.

Luka Bogdanovich, superintendent of Star-Kist Plant No. 4, Terminal Island, Calif., who assisted importantly in supervising the installation of equipment at Mayaguez.

Fish Preparation

● Access to the fish thawing space is provided by a side door from the cold storage rooms. Thawing is in a



Giant Tuna Seiner discharges Yellowfin too large to fit comfortably into the metal container by which they are carried into the freezer. Note that the westering sun touches the vessel while a tropical storm cloud hovers in the distance. P & H hoist units can handle lifts of three tons.

Lydia Menendez, secretary at Star-Kist Caribe, and **Raul Frontera,** personnel manager.

30 by 60' bay between the compressor room and the butchering department of the plant.

The warm nights prevalent in Puerto Rico are counted upon to thaw the fish, but provision is made for coarse spray of sea water to assist in thawing if that should prove necessary.

From the thawing area the fish move into the main plant at the butchering room, which is equipped with two conveyor-type butchering tables identical with those which are virtually standard in California tuna canneries.

Star-Kist Caribe is equipped with five large pre-cookers, each with a capacity for 32 standard tuna racks. Two of the cookers were fabricated in Puerto Rico by the Porto Rico Iron Works of Ponce. The others were brought from the High Seas Tuna Packing Co. in San Diego.

All cookers are equipped with Taylor temperature control and recording instruments.

The cookers are separated from the cooling area by a suspended curtain wall which just gives clearance for men and the racks of cooked fish to pass beneath into the cooling area. Above the cookers themselves, where the air is at high temperature, the roof is furnished with an excess number of vents. Movement of the heated air out of the building above the cookers is counted upon to provide a flow of air through the racks of cooked fish, thus contributing to its cooling.

Tuna Packing Department

● Racks of cooled pre-cooked tuna move through automatically closing doors into the packing room, which is furnished with five preparation tables, each with space for 60 women. All working surfaces on tuna tables are stainless steel.

The tables have two openings in front of each worker for removal of waste material by conveyor belt to the reduction plant.

Helen Puerta, right, packing room supervisor-instructor, with **Celia Ortega.**

The five preparation lines are equipped with diversions which permit them

Modern Tuna Packing Facilities at Star-Kist Caribe incorporate the company's long experience, comparing with the finest in the world, while meeting in all respects the special demands and problems of tropical operation.

to supply eight different closing machines. Of these, six are of Continental Can Co. manufacture and two are American Can Co. equipment. In all cases vacuum is created by the steam-flow process, supplemented by heated canning oil.

Adjustment of the seamers will permit packing in various sizes.

Filling machines equipment consists of four Pakformers and two Pakshapers, all manufactured by the E. H. Carruthers Co., Warrenton, Ore.; and one grated tuna filling machine manufactured by Standard Iron Works, Los Angeles, California.

In addition, the pet food department, which operates in a separate room adjacent to the tuna packing room, is equipped with a Standard grated filler for halves.

Five double-ended retorts, all of the quick-opening type, and all manufactured by the Porto Rico Iron Works at Ponce, provide the process

John Gligo, left, head supervisor, packing room; and **Vince Marich,** maintenance supervisor.

Joe Kadich, left, warehouse supervisor, with **Joe Murillo,** assistant warehouse supervisor.

cook. Each has a capacity for 13 standard tuna processing baskets.

All are equipped with Taylor recording and temperature control instruments.

Processed cans are handled in baskets by Towmotor fork trucks, with which the plant is equipped throughout. Large cooling space is provided in the warehouse section adjacent to the retort room.

Baskets of cooled cans are discharged into two unscramblers, from

Harry Smith, maintenance supervistor, left; and **Don Herbst,** can-sealing machine supervisor.

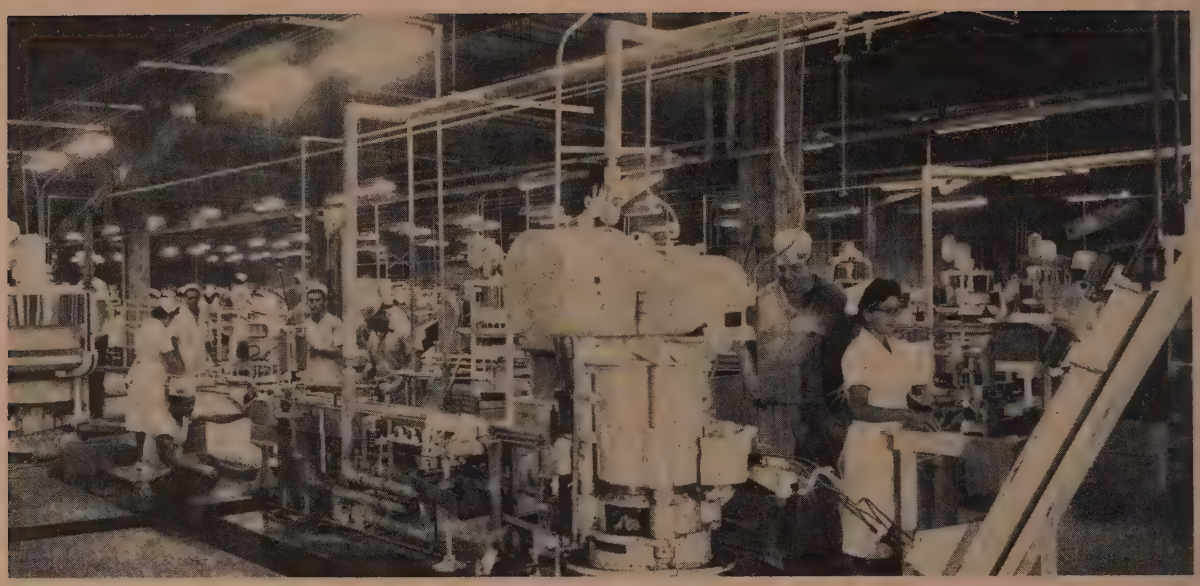
which they are delivered to two high speed Standard-Knapp labeling, casing and case-sealing lines, from which the finished product emerges to storage in the warehouse with floor area of 14,400 sq. ft.

Canned tuna is trucked to the Mayaguez Terminal about a quarter-mile from the cannery.

Can Reforming Plant

● Star-Kist Caribe's can supply is unusual, although not unprecedented, in the tuna industry.

This is an entirely notable installation, situated in a separate building with 21,600 sq. ft. of floor space, and located across a plant roadway from the main processing structure. The plant is equipped with four high-speed Continental Can Co. reforming lines, each of which consists of a reforming machine where the flattened can bodies are restored to cylindrical form

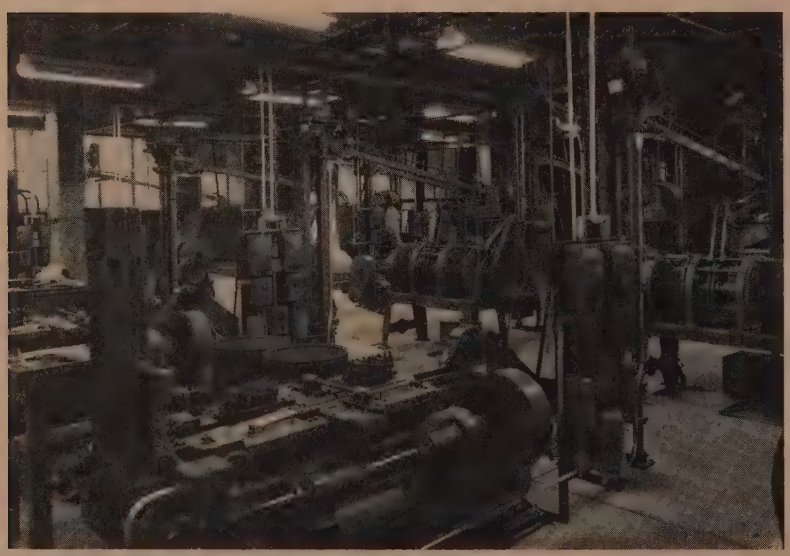


Eight High-Speed Seamers of the steam-flow vacuum type close the cans of tuna as they stream from the five preparation lines at Star-Kist Caribe's plant in Mayaguez.

on a mandrel; a flanger, where the flanges are rolled on the ends of the can bodies; and a double seamer, where the bottom is applied and seamed to the can.

Completed cans are delivered at lightning speed to cable conveyors equipped with Bethlehem conveyor wire rope and carried continuously to the cannery over a conveyor-carrying bridge connecting the two buildings. Through a remarkable system of distribution, the cans go directly to the can-filling machines. If the supply of cans exceeds the demand, excess cans are by-passed and returned to the can plant where they are distributed automatically to three gigantic reserve can storage bins, each of which has capacity for 500,000 half-pound tuna cans. The can plant equipment is actuated throughout by U. S. Synchrogear motors.

Collapsed cans take about 20% of the shipping space they would occupy if fully formed. This produces a large saving in freight costs where cans must be provided for remote operations, in the economics of which collapsed cans have proved to be an important factor.



Can-Forming Operations at Star-Kist Caribe are performed on these high speed Continental Can Co. machines. Finished cans are circulated continuously to the cannery and those for which there is no demand are automatically returned to can plant storage.

Pet Food and By-Products

● Tuna red meat is removed from the Mayaguez preparation tables to the pet food department adjacent to the main packing room. There the material is grated to uniform fineness, combined with Vitamin E supplement, and filled into ½-lb. cans with a Standard Iron Works filler.

Offal from the butchering and tuna preparation tables is conveyed to the by-products plant, which is an entirely separate section of the main building. There it is processed by cooking and pressing in a P & L disc press of 15 tons hourly capacity. Solids are dried to fish meal in a large direct-heat trommel drier.

Stickwater is "de-sludged" on a Bird horizontal decanter, from the DeLaval Separator Co., and the oil recovered by a DeLaval ACVO centrifugal, and then refined on a DeLaval polisher.

Water and Electricity

● Mayaguez public power and water facilities are excellent, and are depended upon wholly by Star-Kist Caribe. The plant electric system depends wholly upon General Electric equipment. Transformers are three GE units of 833 kva. rating. Copper electrical cable is Phelps Dodge, and all of it throughout the plant is run

Star-Kist packs America's leading brands of seafoods

This rugged, adventurous-looking fisherman is the highly memorable trademark now on all our new Star-Kist Tuna labels.

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- Star-Kist Solid Light Tuna
- Star-Kist Chunk White Tuna
- Star-Kist Solid White Tuna
- Star-Kist Dietetic Pack Tuna

- Star-Kist Frozen Tuna Pie
- Star-Kist Frozen Tuna Casserole
- Star-Kist Frozen Rock Lobster Tails
- Star-Kist Frozen Lobster Newburg

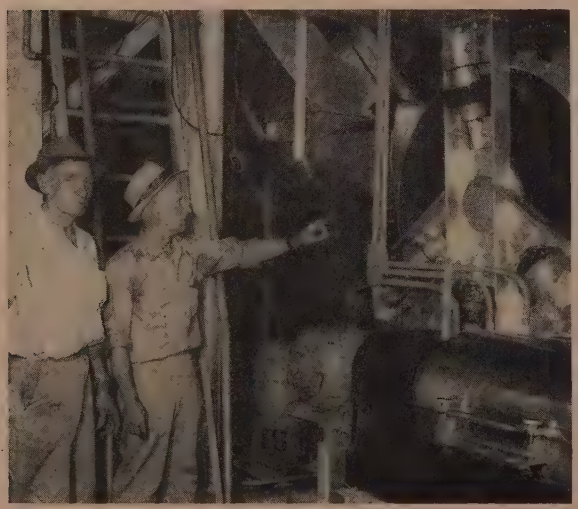
- Eatwell Sardines
- Eatwell Mackerel
- Eatwell Anchovies
- Nine Lives Cat Food

Star-Kist Foods, inc.

TERMINAL ISLAND, CALIFORNIA / J. J. Bogdanovich, President

Pre-Cooking and Processing at Star-Kist Caribe. Upper picture shows the five pre-cookers, each with capacity for 32 standard tuna racks. On the right, Louie Marincovich, fish cook room supervisor, and in the middle Tony Escapa, assistant supervisor.

Second photo above shows the five double-ended retorts, each with capacity for 13 standard tuna baskets. Note the Taylor instrumentation, which is standard throughout the plant. Carlos Coello, retort department supervisor, is on the left, with Jose A. Carlo, assistant retort operator.



By-Products manufacture at Star-Kist Caribe utilizes this P & L press, to which Curtis Powell is pointing. Despite its compactness, the press has rated capacity of 15 tons pf material hourly. In the lower right foreground is the Bird horizontal decanter by De Laval, on which stickwater is de-sludged before being finished on other DeLaval centrifugals. Standing on the left is "Dutch" Yates, installation specialist.

in aluminum conduit, anodized against corrosion. This is the first installation of this kind in Puerto Rico. The aluminum conduit was manufactured by the Aluminum Company of America. It is being widely advocated for use in the tropics, and particularly in sea coast installations such as that at Mayaguez, where conditions are particularly severe.

Mayaguez's water is generally regarded as the best in quality in Puerto Rico, and is abundant in supply. A new 12" line was laid past the Star-Kist Caribe plant with a 6" main serving the cannery.

Particular attention to floor drainage was given in the design and construction of the Mayaguez cannery, with all floors well-sloped to drains. Floors are of a dense concrete for long wear and effective cleaning.

Suspended water and steam lines run throughout the cannery for wash-down purposes, with hose stations at all columns throughout the main cannery building.

Contractors

● General contractor for the Star-Kist Caribe, Inc., cannery was H. I. Hettinger & Co., Santurce, Puerto Rico, who had Ismael Ramos as project engineer under the direction of Milton Martinez of Martinez & Costa, owner's engineers.

Lorson Electric Co. of Puerto Rico was the electrical contractor and Robert R. Prann & Son, Inc., of Santurce contracted the pile driving.

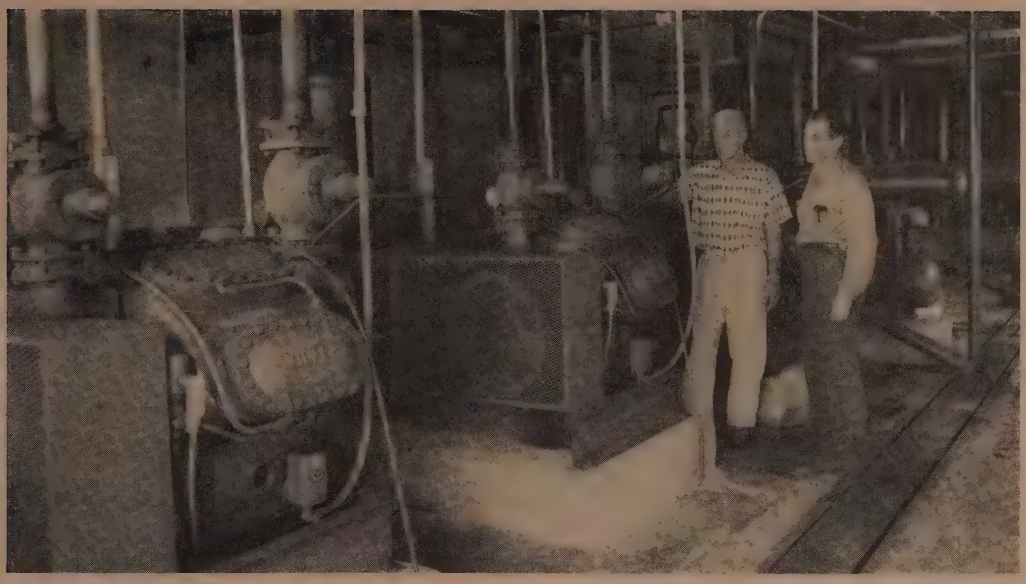
Piping installations were in the hands of Sam P. Wallace & Co., San Juan; pre-stressed concrete members were produced by Structural Concrete Products Co., Carolina, P. R.; and the Porto Rico Iron Works of Ponce manufactured retorts, tanks and other steel vessels.

The extensive refrigeration installation was contracted and installed by Eugene P. McDonald, Inc.; and the cold storage insulation was furnished and installed by the Armstrong Cork Co.

Administration

● The new Mayaguez plant is directed by Thomas W. Crump, president of Star-Kist Caribe, Inc.

Mr. Crump is a technologist, with broad practical training. A graduate of the University of Washington College of Fisheries, his background includes two years of service with the Los Angeles Smoking and Curing Company, followed by many years with Star-Kist Foods, Inc., Terminal Island, Calif., where he served as



Refrigeration compressors for Star-Kist in Puerto Rico are Vilters, six of them, all identical, all 8-cylinder, and all part of an ultra-modern refrigeration system. Here, on the right is Eugene P. McDonald, refrigeration contractor, with Louie Marincovich, dock and fish room supervisor.

foreman, plant superintendent, and as production manager of that company's Frozen Food Division.

Dedicated to providing services in fulfilling the increasing demand in the world markets for canned tuna products, this fine new plant in concept, construction and production standards stands out as eminent even among the other remarkable examples of the industrial growth in the great commonwealth of Puerto Rico.

Star-Kist Enterprise is Factor in Industry Drama

● Establishment of Star-Kist Caribe, Inc., in Puerto Rico is a significant manifestation of a trend affecting numerous elements of American industry—a trend affecting Puerto Rico profoundly.

This Caribbean island, which has been United States territory for more than 60 years, currently is in a remarkable phase of development.

This is not all industrial. Much of it is based upon the natural beauty of the island and the sea, and its proximity to the great population centers of America. Four hours from New York by jet, Puerto Rico has tremendous tourist and resort potential.

Puerto Rico is a market also. The present census is expected to show a population of 3 millions; and the per capita income and standard of living is high for the West Indies.

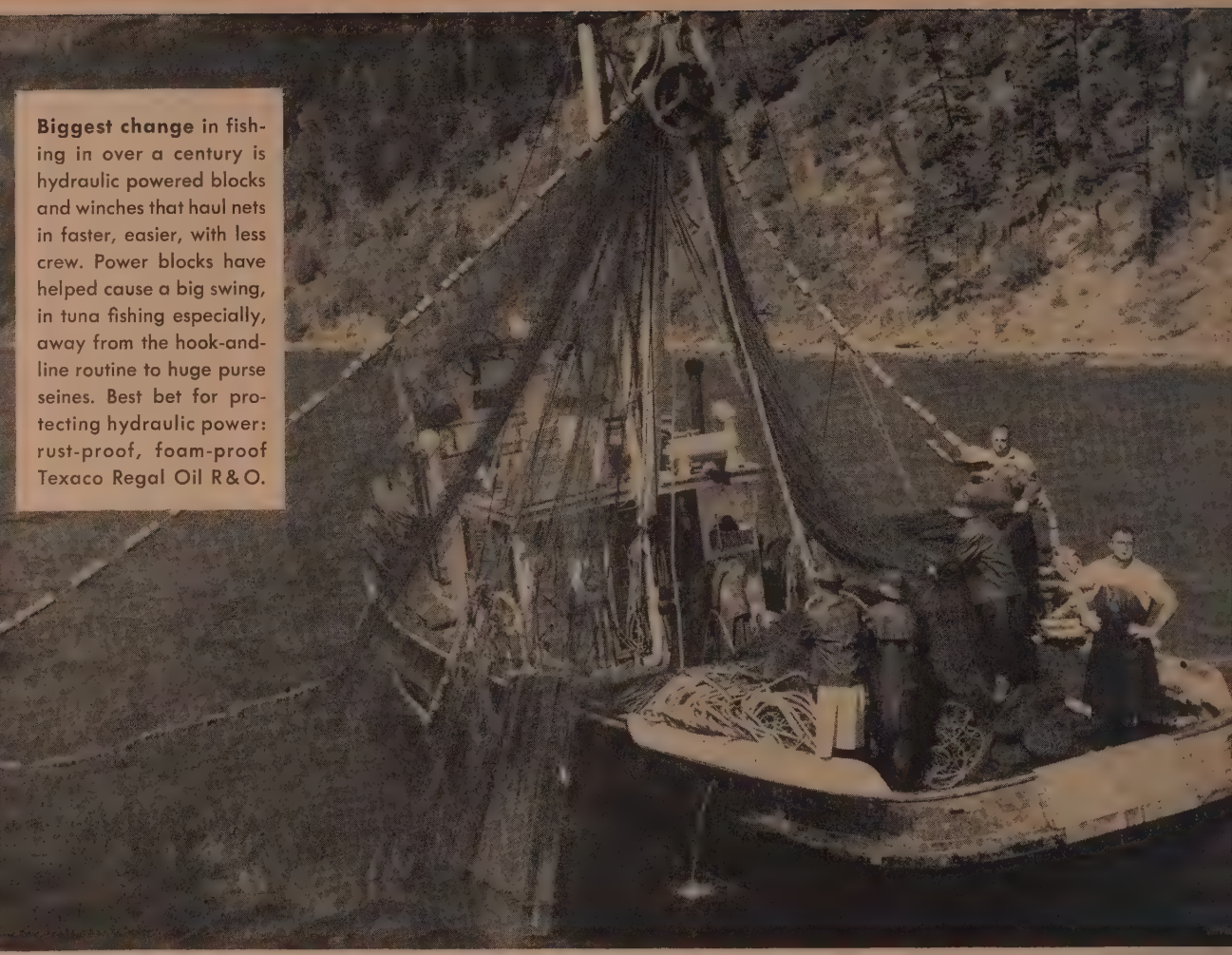
Pacific Fisherman's observations of the island economy show the canned food shelves of grocery stores stocked at least as adequately as the average in the United States, with such labels as *Star-Kist, Del Monte, Chicken of the Sea* and *Libby's* widely represented at prices closely in line with those in the States.

● A partial list of industrial operations which have been established recently in Puerto Rico—not including the older enterprises associated with the traditional sugar, pineapple and distilling industries—will include:

Remington - Rand Shaver Division of Sperry-Rand Corporation; Hickok Belts; Puerto Rico Glass Co.; Caribbean Oil Co. refinery; Weller Electric Tools; Lennox Plastics; Caribbean Containers, Inc., (Mead Paper Co.); Pan-American Plastics; Sunbeam Electric Co.; National Cylinder Gas Co.; Phelps-Dodge Corporation; American Can Co.; Parke, Davis & Co.; General Electric Co., two plants; Rectifiers, Inc.; Beauknit Lingerie; Caribe Shoes; Playtex garments; Puerto Rico Container (W. R. Grace Co.); B.V.D.; Westerly Drill Tools Corporation; Star-Kist Caribe, Inc.; The Carborundum Co.; Maidenform Lingerie; Fifth Carpet Co.; Gordonshire Knitting Mills; Gonzales Chemical Co.; Shell Oil Co. refinery; Union Carbide Corporation, two plants; Texaco, Inc., refinery; Commonwealth Oil Co. refinery; St. Regis Paper Co., bag plant; National Packing Co. (Van Camp); Standard Oil Co. (New Jersey) refinery; Van Raalte gloves; M. K. M. Hosiery; Univis Lenses, Inc.; Consolidated Cigars Co.; United-Greenfield Tools Co.; Rico-Dent Tooth Brushes.

● Coincident with *Pacific Fisherman's* visit to Star-Kist Caribe, Inc., at Mayaguez, it was announced that Hilton Hotels Corporation would build and operate a modern hotel in that city, third in Puerto Rico in point of population.

Al Christy, left, assistant packing room supervisor, discussing a point with one of his key men.



Biggest change in fishing in over a century is hydraulic powered blocks and winches that haul nets in faster, easier, with less crew. Power blocks have helped cause a big swing, in tuna fishing especially, away from the hook-and-line routine to huge purse seines. Best bet for protecting hydraulic power: rust-proof, foam-proof Texaco Regal Oil R&O.

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Rusting of lines and pump parts is itself expensive, and can create further trouble by depositing bits of abrasive rust through the system. Texaco Regal Oil R&O keeps systems clear and rust-free in severest operating conditions because the natural rustproofing quality of the oil is fortified with chemical rust inhibitors.

If you're having problems with hydraulic power blocks and winches, or if they simply don't have the power and flexibility they had when new, consult your Texaco Lubrication Engineer. He'll be glad to help you, and to recommend the grade of Texaco Regal Oil R&O that will keep your equipment in top condition. Texaco Inc., *Marine Sales & Bunkering Services Division,* 3350 Wilshire Boulevard, Los Angeles 5, California, or 1511 Third Avenue, Seattle 1, Washington.

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PACIFIC FISHERMAN'S NEWS
OCTOBER 1960

Canadians Successfully Pioneer High Seas Seining for Albacore

● British Columbia fishermen made their first attempt at Albacore seining in September, and they liked the results.

They admit they tackled the job the hard way, using improvised gear and vessels that had not been built for that specific purpose; but their experience was such as to indicate to them that *there is real promise in Albacore fishing with seines off the Oregon coast.*

Apart from the deficiency in equipment, the venturesome fishermen who took part in the brief but rewarding operation acknowledge also that they were lacking in experience and skill. They had to try several methods before they finally hit on what appeared to be the right way of harvesting the fish, but they are quite certain that even then their technique was far short of the ideal.

Albacore Seining Pioneers radiate satisfaction as they deliver Canada's first seine-caught Albacore at Steveston, B. C. **Capt. Bill Pitre,** left, and **Capt. Emil Jensen** took the fish off the Oregon coast with salmon seines, and already are planning for a more productive future.

● "We've got a lot to learn — an awful lot to learn," Captain W. J. (Bill) Pitre, skipper of *Pacific Belle,* told *Pacific Fisherman* a few hours after landing his catch at the big Imperial cannery of B. C. Packers, Ltd., at Steveston, September 20. And Capt. Pitre's words were echoed by Captain Emil Jensen, whose *Blue Pacific I* shared the distinction with the *Pacific Belle* of being the first B. C. fishing vessels to deliver a load of seine-caught Albacore in a Canadian Pacific port.

Capt. Jensen's boat made the biggest catch of all—30 tons. Capt. Pitre's *Pacific Belle* landed about 18 tons. A few hours after these two vessels arrived in port, Capt. Elmer Norman's *Skardale* came in with a load of 15 tons and Capt. Bill Logan's spanking

Japanese Step-up Trawl Fishing in Bering Sea This Fall

Japan fishing companies have three big motherships and 26 trawlers fishing bottomfish in Bering Sea this autumn. These are motherships from the salmon fleet, and the overall operation should not be confused with that designed primarily for the manufacture of fish meal.

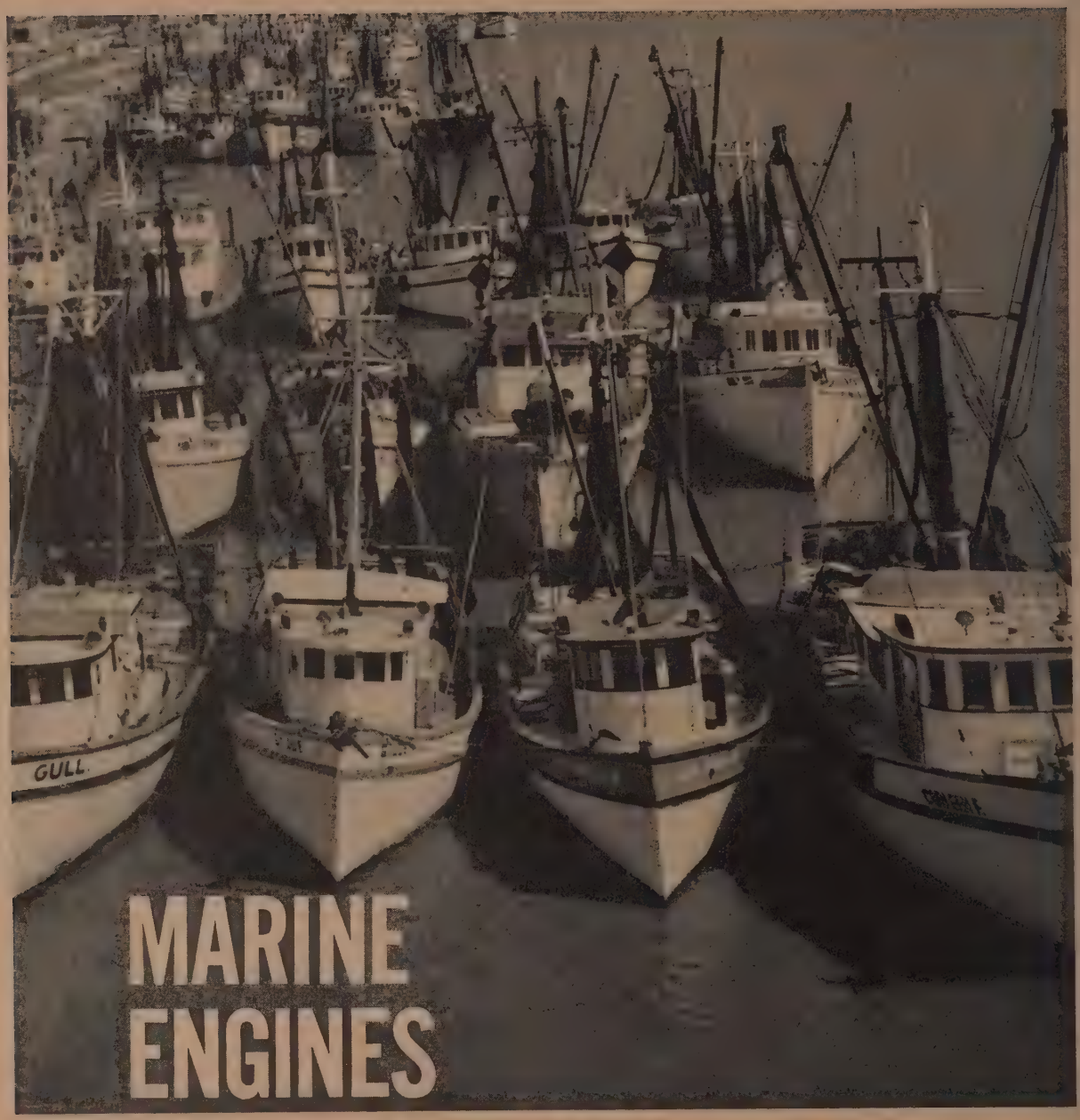
Primary product of the fall operation apparently is frozen bottomfish for Japan's domestic consumption. Target for the three operations is understood to be 15,120 tons.

Motherships reported scheduled for this autumn operation in Bering Sea are *Eijin Maru,* with 12 trawlers; *Miyajima Maru,* with six trawlers; *Kyokuzan Maru,* with eight trawlers.

In addition to these vessels, three similar ships with a comparable number of satellite trawlers are said to be scheduled for operation in the Okhotsk Sea.

Japanese trawl catches along the edge of the Bering Sea from Unimak Island to the Pribilofs are reported by observers to consist largely of several species of sole and flounders from 9⅞" to 15¾" in length; a red rockfish, *Sebastodes flammeus;* Alaska pollock; and Pacific true cod.

A considerable degree of infestation by associated organisms is reported.



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PACIFIC FISHERMAN'S NEWS

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new *Dominator* delivered about seven tons.

At the Imperial plant the fishermen were met by Stewart Roach and John Harrison of the staff of the Fisheries Research Board of Canada, who for the past two or more years have studied the possibilities of developing a B. C.-based Albacore seining operation. For them, as well as for Pitre and Jensen and the other skippers the event called for considerable gratification.

"We didn't exactly make history," said Captain Jensen, "but we found out a few things. We hope to profit by our mistakes."

● Until their expedition to the Albacore grounds off the mouth of the Columbia River, the B. C. fishermen had concentrated on salmon, herring and halibut. If they hadn't tried their luck with Albacore they would have been restlessly biding their time at home because the herring fishery is at a standstill this summer, salmon fishing has been severely restricted and the halibut season was long past.

Members of the Fishing Vessel Owners Association, Pitre, Jensen, Norman and Logan took part in that organization's discussions that led to an arrangement whereby one trip per boat would be made to the Albacore grounds within a three-week period. In addition to the four vessels mentioned, Nelson Bros. Fisheries was represented a few days later by the *Amlac,* skippered by Capt. Bill Flewin, and the *Nanceda,* with Capt. Louis Percich. The *Amlac,* however, was using poles and gillnets rather than seines.

Most of the B. C. fishermen were using 300 fathoms of 15-thread nylon seines, 24 fathoms deep, and Capts. Pitre and Jensen were convinced that nylon seines were the only suitable gear for their operation, although they would have preferred to have them 50 fathoms longer and 10 fathoms deeper.

● "Helicopters would have helped a lot," said Capt. Jensen. "They could have saved us a lot of time and trouble by spotting the birds."

"And the schools too," put in Capt. Pitre, who added that without the type of detection that is familiar with California tuna clippers the B. C. fishermen were comparatively "blind." Another handicap was that they had no space for bait. They had to depend on natural feeding.

"We were out there for days at a time without sighting anything," added Capt. Pitre. "One thing we learned fast was that you can't go after Albacore like you can salmon. You have to hit the Albacore schools when they're feeding. And when I tell you that it was tricky business to get the bottom under them that's a real understatement. We got more skunks than sets at first, but we learned a lot of things not to do. And we won't do them again."

"The main reason we came in when we did was that we didn't have adequate refrigeration for a longer stay at sea. What we need to know as much as anything right now is the best type of refrigeration for smaller vessels of, say, 80 feet in length and under."

● That is a subject on which the Fisheries Research Board has been working, with encouraging results. It was clear to the B. C. skippers that, while their vessels were wonderfully efficient for the type of fishing for which they were built, Albacore fishing just wasn't contemplated when they were originally outfitted.

"The things we learned about Albacore!" continued Capt. Pitre. "You might as well compare wild steers with dairy cattle when you're referring to Albacore and salmon. There's one thing for sure—it was the most exciting fishing in my life."

In his case that statement takes in a lot of territory, for Capt. Pitre, who makes his home in Victoria, has been fishing for 40 years.

Capt. Pitre describes his *Pacific Belle* as "the biggest little boat on the coast." One of its unique features is that it has quarters for eight men on the deck. It was built by Matsumoto Shipyards at Deep Cove, B. C.; 55' long with a beam of 19' and power plant consists of a 240 hp. Murphy diesel. Capt. Jensen's boat, *Blue Pacific I,* is a bigger craft, 72' long, with a 300 hp. Atlas.

Both skippers admired the much bigger vessel, *West Point,* out of San Pedro, 112' long, which they encountered seining off the Columbia. So far as they knew, it was the first U. S. vessel using seines for Albacore and it was admittedly an experimental venture. *West Point's* big advantage, apart from its size, was its spacious brine tanks which permitted it to stay in the Albacore area almost indefinitely. *West Point's* gear, too, was far superior to that of the B. C. boats'.

A much smaller B. C. boat, the 45' *Fredelia III,* usually operating out of Prince Rupert, delivered 1650 Albacore in Vancouver before the other vessels, but the fish were troll-caught.

● Capts. Pitre, Jensen and the other skippers who tried their hand with seining Albacore this season believe that the results they achieved point to a permanent addition to B. C.'s fishing activities. In future, B. C. fishing vessels, if properly designed and equipped, can now fish for Albacore as well as halibut, salmon and herring, although in an average year most of the B. C. fishermen would probably give their preference to herring because of the bigger hauls in a limited time and the prevalence of the fish in more sheltered waters nearer home port.

Biggest single seine haul by the B. C. fleet up to September 20 was 1600 fish in a single set, by *Blue Pacific I.* Size of the Albacore averaged 16 lbs.

According to the agreement under which the B. C. boats operated the share agreement was on the basis of 42% for boat and nets and 58% for crew. *Blue Pacific I* and *Pacific Belle* carried eight-man crews.

"This has been one bright spot in a dismal year," remarked Ken Fraser, vice president, production, of B. C. Packers. "What has impressed me most is the tremendous enthusiasm of the men who took part in the Albacore project. If this fishery can be developed, with suitable boats and more effective gear, it will be of real importance to B. C.'s fisheries economy by creating another source of revenue that had previously been unexploited."

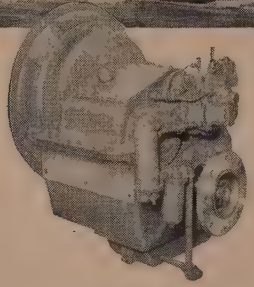
Collision Kills Troller

Giuseppe Messina, 61, San Francisco salmon fisherman was killed just outside the Golden Gate last month when his troller *Sea Maid,* and a German freighter collided.

Only the best is cheapest in the long run.

A boat owner, builder acclaims S-N Gears.

"My first experience aboard Viking Maid with S-N gears was so satisfactory, S-N gears are standard equipment on Olympic Maid."



"In hard salmon fishing off the coast of Alaska and in Puget Sound our S-N gears have never faltered," says Dick Hansen, Seattle, Washington, Captain of *Olympic Maid.*

"I have been building boats and experience has taught that only the best equipment, like S-N gears, is the cheapest in the long run and shows a great profit at the season's end."

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69-70 Million-Lb. Halibut Catch Shaping Up For 1960

● North Pacific halibut production on the order of 69 to 70 million pounds was forecast for 1960 by closest observers as the season was running out its last weeks and heading to the close Oct. 16.

This compares quite favorably with the 71.5 million taken in 1959.

The reduction in seasonal volume can be traced most readily to the anticipated decline of about 1.5 million pounds in the landings in Area 3B, which was expected to produce about 9 million this year, against almost 10.5 million last year.

In any case, the 69-70 millions expected in 1960 is a long way short of the 80 million-pound catch which was casually forecast by some enthusiasts last spring, before the regular season commenced. They were stimulated by the phenomenal production of a phenomenal fleet fishing Area 3B during the "April bonus" season.

Reduction in fishing return far to Westward is regarded as a normal reaction to the heavy withdrawals from those grounds in 1959 and through the April season this year. The stocks in those waters appear to be quite close to equilibrium, and very sensitive to any substantial increase in fishing effort.

Evidence of this is seen in the 2 million-pounds catch in Area 3B in May, June, July and August, this year, following the heavy fishing of last summer and April of this year. In these same four months of 1959 the Area 3B catch was 4 million.

● The seven-day second season in Area 2, last landings from which were arriving as this was written, promised to produce about 3.25 million pounds, about the same as last year.

With this level of production holding, it would appear that the split season has served its purpose of picking up the accumulated stocks of late fish on these grounds, and that the second season now may be depending largely upon the annual increment of these late-appearing local fish.

The Area 2 second season catch was somewhat under early expectations, which may be due in some part to the diversion provided by the exceptionally strong sablefish market. Some of the boats which had gone sablefishing between seasons elected to stay with black cod straight through; and why not, since sable was selling in the same price range as medium halibut. 19 to 20.2¢.

● Halibut prices stiffened a bit as the season ran to its close, but on the whole the fishermen have felt they left a lot to be desired this year.

Nor do they seem to have produced the market action sought by the trade. Despite the more attractive sales figures, demand is reported as logy; and perhaps marketwise the distinctive feature of the season has been the extent to which halibut has gone into distribution fresh.

3 Seiners Building For Kadiak Fisheries

● Three new 42′ seiners for Kadiak Fisheries, Inc., operation in the Kodiak Island area are being completed by Grandy Boat Co., from designs by Edwin Monk. The wooden hulls have 14′ beam and about 4′ draft.

All three vessels (one already launched, named *Sophia K.;* another near launching at this writing, to be christened *Peril Cape;* and a third unnamed) are powered by GMC 165-hp. diesels purchased from Hatch & Kirk, Inc., Seattle. Operating at 2-to-1 reduction with hydraulic reverse gears, the vessels are being equipped with 1¾" Monel shafts turning in Goodrich Cutless bearings and using Coolidge 28"x24" propellers and Coolidge stuffing box.

The boats accommodate four men in foc's'le. The galley to starboard features double sink and oil range. Table folds to conserve space in the compact house, set well forward to give ample space for fish hold aft, which is 16′ long and of over 720 cu. ft. capacity. Hull is designed with moderate sheer, but incorporating heavy framing (a 6½x11½" keel, for example) and tankage for 600-gal. fuel and 200-gal. water supply.

Sophia K, Peril Cape and the third sister are designed to adapt to other work than salmon fishing. Their stout, compact build and potential versatility represent an example of an apparent trend to this type in the new Alaska salmon seiners. It is being found by more operators that a *medium*-sized seiner, smaller than the "limit" seiners but larger than the "jitney" type, can give balance and economy to overall operations.

Works long shifts at slow speeds—Yet no sign of engine deposits after 15,800 hours

MV Two Brothers works long, hard hours at slow, engine-punishing speeds, dragging for fish out of New Bedford, Mass. This 50 ft. fishing boat is powered by a Caterpillar D-13000 engine using RPM DELO Oil exclusively since new. Yet, after 13 years of severe service engine parts remain clean, show surprisingly little wear.

At last major overhaul after 15,800 hours there was no carbon buildup, no sludge or deposits of any kind. Pistons showed no varnish or scuffing, oil ring slots were clean, rings free and clear.

Captain Maurice Clattenburg reports "We are thoroughly satisfied with the performance of RPM DELO Oil. We've gotten outstanding service, and our maintenance records prove it."

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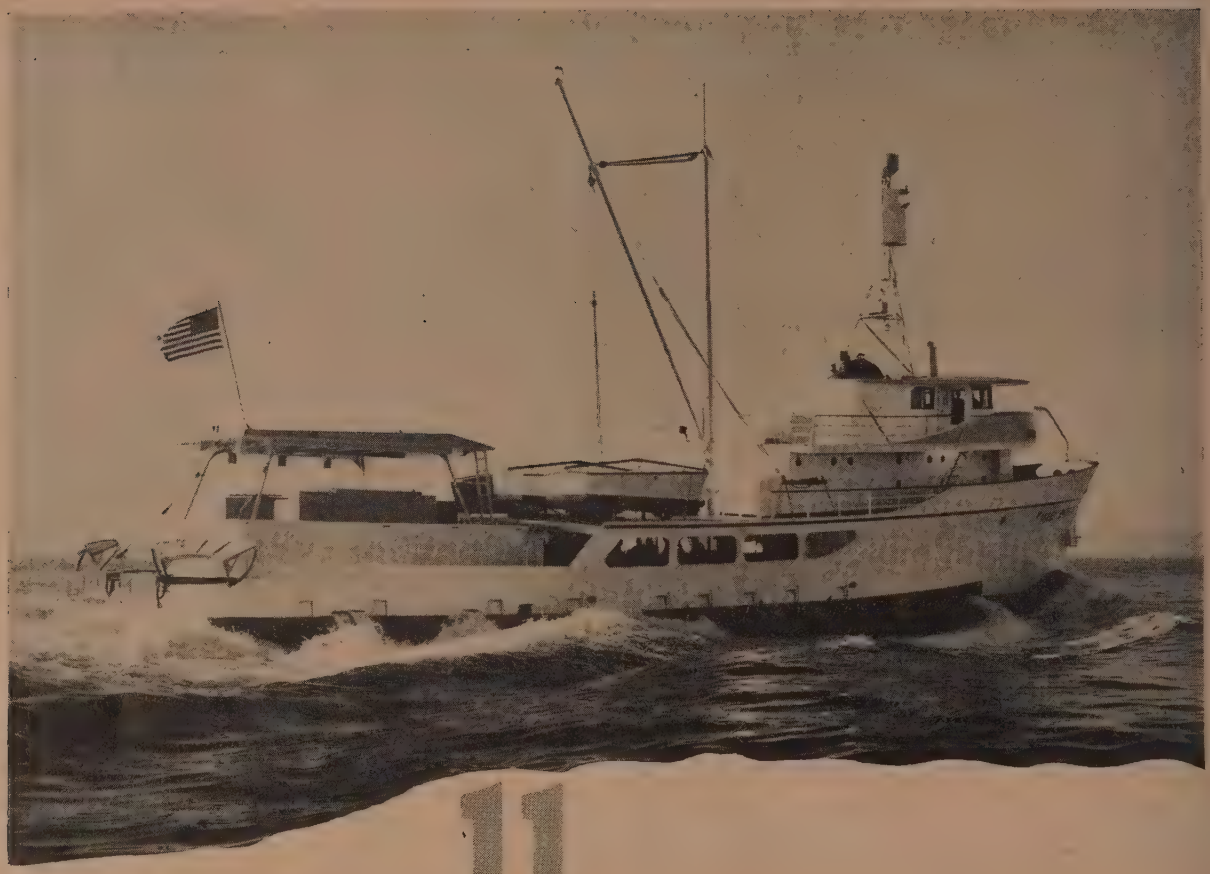

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National Steel & Shipbuilding Co., of San Diego, has again equipped a new tuna clipper with Murphy Diesel Auxiliary power. In the 127-ft. "Mary Barbara", as in her sister ships, each of her two 191 HP (continuous) Murphy Diesels drives a 125 KW generator.

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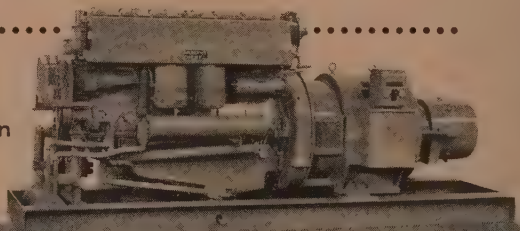

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Early Fall Fishing Fails to Provide Adequate Supply of Silvers and Chums

● Early autumn salmon production was disappointing all along the line.

This was particularly true in Southeast Alaska.

British Columbia was also dull, although later fishing for Chums *could* improve.

Puget Sound's September production of Silvers continued to confirm the shockingly low level of the 1960 population of *O. kisutch.*

Columbia River's delayed mid-September re-opening was marked by light-to-poor catches, but with Silvers and Chinooks about 50/50 by weight.

Troll fishing was almost down to nothing as Albacore attracted all the larger vessels.

Unquestioned shortage of Silvers and Bright Falls or Silver Brights in the frozen salmon trade before the end of September had pressed prices up to the point where canners knew they could not cut far into whatever deliveries might come. In Canada an excellent export demand was reported for frozen salmon; and in the United States the buyers were hardly asking the price.

At presstime the few troll Silvers available to the Seattle dealers were commanding 57¢ per lb., dressed head on, *to the fisherman.*

Red King splitters brought 81¢, dressed heads on; mediums 64¢ and smalls 52¢.

Southeast Alaska

● Alaska Department of Fish and Game in the Fall season continued its policy of short periods of opening almost on a test-fishing basis, while standing ready to extend the fishing time if results indicated presence of fish in volume sufficient to provide both catch and escapement.

This policy of course favors the resident fishermen of Alaska, and that is undoubtedly one of the considerations ADF has in mind. At the same time, in 1960 at least the method has proven generally effective, getting as good an escapement as the run afforded, with regular sampling to test its ability to support an active fishery.

Thus in mid-September the ADF announced seining would be permitted in major portions of Kasaan Bay, Chomly Sound and Moira Sound, but only on the basis of 1.5 days a week, beginning Sept. 16.

These areas are basically Chum salmon grounds; and registration in and out of the fishing areas was required of all seine boats and tenders.

Early production was light, barring extension of the prescribed open periods with their test-fishing side function.

With the Portland Canal salmon migration dwindling to low levels, ADF closed the gillnet fishery there on September 15 for the remainder of the season.

ADF did not rely wholly on the short open seasons in three bays to indicate character of the Southeast Alaska Chum run. It maintained close observation, but without open fishing, in Excursion Inlet, Hood Bay, Chaik Bay, Security Bay, Port Camden and Klawock Inlet in order to detect any build-up in the Chum run which might support a fishery while providing escapement.

British Columbia

● In southern British Columbia, for the week running beyond the middle of September, Coho landings totaled 195,000 lbs. compared with 254,000 lbs. the previous week, both well below the 731,000 lbs. reported for the same period last year.

Gillnet landings of Springs at Steveston from the Fraser River and outside areas amounted to 16,000 lbs. of red Spring and 144,000 lbs. of white Spring. Fraser River fishermen were paid 40-48¢ for red Spring and 30-38¢ per pound for white Spring.

During the week ending September 17, landings of troll-caught Spring salmon at the B. C. southern ports totaled 94,000 lbs. compared with 45,000 lbs. the previous week and 81,000 lbs. for the same week last year. Direct landings by trollers at Vancouver totaled 4,000 lbs. priced as follows: large red Spring 72-73¢; Medium Reds 53-55¢; small Reds 35-45¢; large white Spring 45¢ and small white Spring and jacks 28-30¢ per pound.

Salmon Commissioners in the field, discussing a point with George McNaughton, left, superintendent of the Sockeye Commission's Upper Pitt River station. On the right, A. J. Whitmore, veteran Canadian commissioner; and in the middle W. R. Hourston, who succeeded him as Director, Pacific Area, Canadian Department of Fisheries, also becoming a member of the international commission.

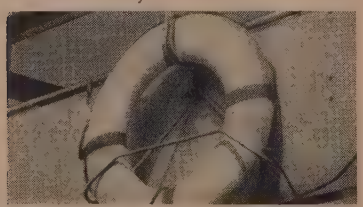
Fraser River

● With Sockeye fishing on the Fraser really complete, the report of the International Pacific Salmon Fisheries Commission for mid-September showed a catch of 2,438,842 fish, of which the United States fishermen took 1,186,874 and the Canadians 1,251,968, a margin of 65,094 in favor of the latter. This could be expected to increase slightly, as result of the Canadians taking a few Sockeye stragglers with their Silvers, Chums

Spongex floats a MUST

. . . says Captain Norman Mezin, San Pedro, Calif.

"We consider Spongex floats a *MUST* aboard the 'Determined', our 121′ tuna purse seiner," says Captain Norman Mezin of San Pedro, California. "We were one of the first tuna bait boats to convert to purse seining. We added Spongex floats and have been very successful ever since.



These ring life buoys *for fishing boats have all the advantages of B.F.Goodrich Spongex floats. U.S. Coast Guard approved and accepted by commercial lines.*

"Most of our fishing is done off the Coast of Peru. We were high boat out of San Pedro in '59 with a total of 1550 tons of tuna—and Spongex helped make this possible," said Captain Mezin.

These B.F.Goodrich floats have earned enthusiastic approval by fishermen everywhere because of their toughness, light weight, permanent buoyancy. Practically indestructible, they won't break, crumble, need no maintenance. And they never waterlog to add extra weight to nets. B.F.Goodrich floats come in 17 sizes, ranging from 3″ x 1½″ to 6″ x 14″. For full information, write *The B.F.Goodrich Company, 145 Derby Place, Shelton, Connecticut.* Made under Pat. No. 2,737,503

MARINE PRODUCTS BY B.F.Goodrich

and Kings as the Salmon Commission relinquished control.

In 1959 the United States catch of Fraser River Sockeye exceeded that of Canada by 230,000 fish.

Puget Sound

● Puget Sound Silver salmon catches were extremely poor through September, and fishing was closed by Milo Moore, state director of fisheries, during much of the month in an effort to secure escapement sufficient to permit up-building of the run in future years.

Test fishing shortly before press-time in a closed period and favored location, with two seiners making five sets, produced only 37 Silvers.

A very few Chums had been taken in Puget Sound to the end of September, but no showing which might delineate the fall run of this species was expected before the middle of October.

Late September reports from trollers fishing well off-shore from Vancouver Island reported amazing abundance of immature Silvers in the 12-14″ range, fish which could only be expected to mature in 1961.

Columbia River

● Columbia River re-opening Sept. 19 found the best fishing in the lower river, with the gillnetting upstream in the vicinity of Vancouver yielding almost nothing. This was taken to mean that the main volume of fall Chinooks had passed over Bonneville Dam.

Lower river catches, with high boat about 500 lbs. at the opening, were about half-and-half Chinooks and Silvers.

Fishing Boats Re-fitted

Theron Skyles, who berths his trawler *Clatsop* at Evans Radio Dock, Oakland, had a complete new stem put on the vessel at Pacific Boat Works, Richmond, Calif.

The California Department of Fish & Game gill netter *Striper,* has received a new cabin, rolling chocks, and new electric wiring at Pacific Boat Works. Doing the wiring was Boicelli & Mercury, Fishermen's Wharf, San Francisco.

New Diesels Installed

A number of San Francisco skippers of trollers have installed Tasco Ford marine diesel engines, purchased from and installed by Boicelli & Mercury Fishermen's Wharf, San Francisco, and distributed in California by Thomas A. Short Co., Oakland.

Among them are: Tony Leonard, *Jimmy;* Sam Sabella, *Laura S.;* Bennie D'Angelo, *Angelo B.;* Paul Mione, *St. Paul;* J. Vanderpool, *Leader;* and Bob Kirschman, *Prozit.*

Blunt's Reef Hot Spot in Albacore Fishing in Sept.

● Albacore fishing in Pacific Northwest waters late in September centered largely in the vicinity of Blunt's Reef, Calif., with Eureka the principal port of delivery for the jig boats.

This notwithstanding the successful seining of Albacore by Canadian and Southern California vessels in the immediate vicinity of the Columbia River.

Tuna were reported along the coast in late September at least to the latitude of Grays Harbor, but they were rather scattered and did not seem to be feeding at a rate which made troll fishing effective.

● Blunt's Reef fishing going into the last week in September was quite good, with deliveries by jig boats running up to 12 tons and more.

Price at Eureka was $275 per ton, with a deduction of $10 per ton when it was necessary for the purchasers to freeze the fish. When the Albacore could be handled in the cannery fresh, avoiding the cost of freezing and storage, the full price was paid.

Columbia River Packers Association was buying actively in northern California and trucking the fish to its cannery at Astoria. Supplies also were being trucked from Coos Bay and Yaquina Bay. The company reported it was paying $300 per ton for fish delivered to its Columbia River cannery.

The Fishermen's Cooperative Association stations at Coos Bay and Westport, Wash., were paying $275, the price prevailing in Southern California.

Already Building Gillnet Boats for Bristol Bay

Two new 32′ Bristol Bay gillnetters' hulls are being built ready for turning-over and completion of topside work and fittings by Commercial Marine Construction Co., Seattle, for two Pittsburg, Calif., fishermen, Tom Aliotti and Gene Mercurio, who will fish them for Arctic Maid Fisheries.

Each vessel is powered by a Norseman Marine 160-hp. marine engine from Pacific Fishing & Trading Co., Seattle. Engines will turn Coolidge 22″ propellers with 2-to-1 reduction gear, Monel shafts and Goodrich bearings, to deliver an expected speed of 18 mph. The 2-man boats will have a minimum of accessory equipment, but will use Jabsco pumps and Mathers engine controls.

Mercury Goes Down Off Costa Rica

A converted tuna purse seiner was lost late in August when the *Mercury*, 108′ vessel out of San Diego, sank off Costa Rica. All hands were taken aboard the *Conte Bianco*, another converted seiner, and nobody was hurt, despite stormy weather.

Aboard the *Mercury*, according to Coast Guard reports, were Skipper Anthony Bozanich, Chief Engineer Ray Fletcher, Navigator Walker P. Morgan, Assistant Engineer Walter Seewald, and crewmen Joseph Gomes, Luka and Vladimir Alafetich, Kindo Maricic, Miljenko Pecarich, Louis Butorovich and Tony Bozanich.

The vessel was owned by Harbor Boat and Yacht Co., San Diego, which did the conversion job. Managing owner was Arne Strom of Tacoma. *Mercury* was said to have had 100 tons of tuna aboard when she went down.

Clipper Mauritania Sold

The *Mauritania*, a 325-ton tuna clipper, was sold at auction in San Diego last month, to a group of San Pedro owners headed by John Vilicich.

Mauritania is 132 ft. long, built by Avondale, and listed in the *Pacific Fishermen* clipper roster with Lewis Livesley as managing owner.

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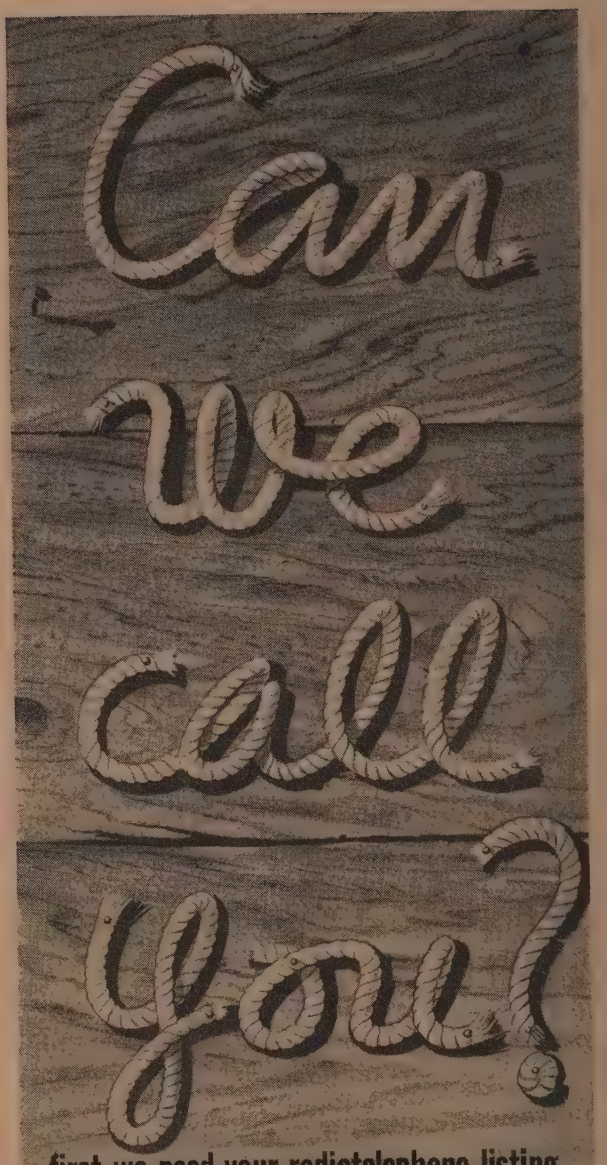

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Nez Perce Dam Would Trigger Decline of Salmon Trolling

By BERT G. JOHNSON

● If the Federal Power Commission approves the application of the Washington Public Power Supply System to build a dam on the Snake River bigger than Grand Coulee, it will set in motion a disastrous decline in the troll salmon industry of the Pacific Coast.

In announcing late last month that they had applied for an amendment to increase the height of their proposed Nez Perce Dam by 20', the sponsors boasted that it would be 1½ times the height of Grand Coulee Dam, which, up to this point, holds the record as the largest single salmon killer in history.

What the public utility districts propose is a dam 700' high on the Snake River, a short distance *downstream* from the Salmon River. *The Salmon River is the only major, undammed salmon producing watershed left on the Columbia River system.* The lowermost 60 miles of this highly productive chinook salmon stream would be turned into a lake hundreds of feet deep. Spawning grounds would be flooded. More important, the reservoir and dam combined would create fish collection and passage problems of staggering gravity.

Hundreds of thousands of adult chinook salmon are produced by the Salmon River each year, to be taken in the commercial troll and recreational fisheries, or to return as spawning stock. It produces the bulk of all the spring and summer run chinook salmon in the Columbia River system. It also has a major population of steelhead trout.

Nowhere in the world is there a system of fish passage facilities in existence and working at a dam of such a height. There are none at all at Grand Coulee Dam, which is the closest parallel case.

The proposed fish facilities at Nez Perce Dam, according to the announcement of the sponsors, contain several "interesting" innovations of unique and singular design. Actually, these designs are unduplicated, unproven and without relationship to fish passage experiences at low dams such as McNary.

In essence, it is proposed that the Snake River fishery resource be used as a testing ground for a number of fictional engineering and biological ideas. This test and trial basis for solving fishery problems at high dams was used at Brownlee and Oxbow Dams on the upper Snake River. The runs of salmon there have been nearly exterminated as a result of this gambler's approach, and there is now talk of abandoning the remaining upriver production. Here are structures less than half the height of Nez Perce, involving far fewer fish at the beginning.

The idea that a 700-foot-high dam would permit the passage of more salmon and trout migrants downriver than is now possible under unrestricted natural conditions. as claimed by the Nez Perce people, is preposterous. If Nez Perce is built, just as at Grand Coulee, there will be few, if any, fish left to count either up or downstream.

The trolling industry of the Pacific Coast is composed of men who fish for salmon on the high seas for a livelihood. Along with the many others who are involved in the salmon fisheries, they are fully aware of what has happened to fish runs on the Columbia River in the face of hydroelectric development, and have participated in many attempts to slow down the fish losses that always occur when rivers are dammed and diverted.

There is no way to avoid extermination of the fish runs to the Salmon River if Nez Perce Dam is built, and Grand Coulee Dam — which hasn't a single salmon left above it—is a concrete example of why we think so.

Mr. Johnston is secretary-treasurer of the Fishermen's Cooperative Association, largest organization of salmon troll fishermen in the world; and is also the representative of American salmon trolling on the advisory committee of the International Pacific Salmon Fisheries Commission.

John Coelho Passes

One of the old-time tuna clipper pioneers of San Diego died last month. He was Jon Coelho, 74 years old, a fisherman of 40 years' experience and a resident of San Diego for 35 years. He was born in Portugal.

'MIDNIGHT SUN'

New 72 ft. Scallop Dragger MIDNIGHT SUN, Home port New Bedford, Mass. Owners: Risdal & Anderson Inc., Fairhaven, Mass. Skipper: Magne Risdal. Builder: Harvey F. Gammage, South Bristol, Me.

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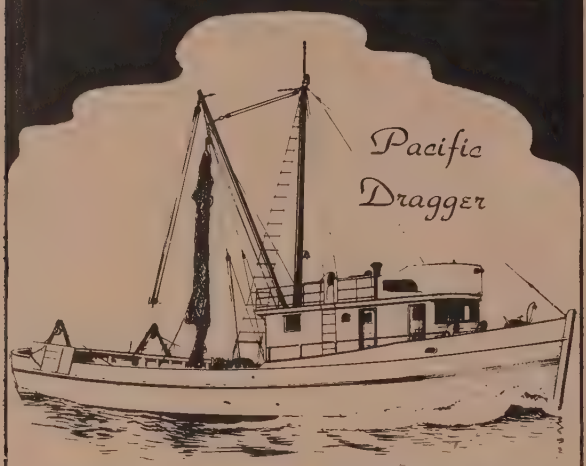

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"Nothing but Starr Nets for my fishermen. They give us larger catches."

Another in a new series of Starr advertisements direct from the fishermen using Starr Nylon Netting.

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STARR NETS

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Monoxide Poisoning Takes Two Lives

A salmon fisherman and his eight year old son died at sea off Bodega Bay, Calif., last month from carbon monoxide poisoning when fumes filled the father's 34′ troller.

David Willis, 42, and his son, Wayne, left Bodega Bay, and the next day there was a frantic and almost incoherent radio message for help from Mr. Willis.

In his message to the Coast Guard and the entire Bodega Bay fishing fleet Mr. Willis sobbed: "My boy is cold. I can't make him talk to me. I'm so weak now I can hardly push the (microphone) button. I don't know where I'm at. Please come and find me."

Coast Guard vessels launched a search but were hampered by fog. Silas Darling, another salmon fisherman found the Willis boat, the *Ellen W.*, going around in circles four miles outside the Bodega Bay breakwater.

Lethal fumes poured from a broken exhaust pipe in the boat's house. But Mr. Darling and his nephew, Ed Shirley, shouted at Mr. Willis until he staggered to the door of the house. They got him to switch off the engine.

When Darling and Shirley boarded the *Ellen W.* they found Mr. Willis holding his dead son in his arms. Mr. Willis died shortly after. Mr. Shirley fainted from the effects of the fumes, but quickly recovered.

New Troller "Flagship" Bases at Moss Landing

A new 52′ queens have joined the Moss Landing troller fleet. The *Flagship,* owned by Clarence Harmon was recently built in Kernsville, Oregon by Ed Gerttula. Beam on the boat is 15.6′. Engine is a G-M 671. Radio is a Fisher and direction finder an Apelco.

Other equipment include a Kolstrand anchor winch, Morse coupling and monel tail shaft. Wheel is a 5 bladed Federal. There are two bunks topside and two below. Stainless steel tanks hold 1800 gallons of fuel. The boat is being completed in Moss Landing by Harmon and his sons and will not be ready for fishing until next season.

CHECKIN' TH' BOATS during a closed period in the Red salmon Bonanza on the Kvichak River of Bristol Bay this summer. Here **Harold Johnson,** New England Fish Co. beach boss, left, and **Dick Taylor,** general shop superintendent of Bryant's Marina, Seattle, check over one of the 20+ Bryant Super Highliners which went to the Bay this season. The boats proved themselves highly effective, carrying 4,500 Reds (1960 size) with ease. On-the-job service follow-through is a Bryant specialty.

Tuna Success Stirs Canadians To Bigger Refrigerated Boats

● Bigger boats and improved refrigeration facilities are the primary requirement of B. C. fishermen interested in the Albacore fishery of the North Pacific.

Capt. Bill Logan, who went after Albacore in his new, all-steel 78′ *Dominator,* and met with considerable success, is among the fishermen who believe that size of vessel is one of the main factors in determining success of the fishing effort.

Some of the B. C. skippers were talking in terms of vessels of 120′, far bigger than any currently engaged in the more traditional halibut, salmon and herring fisheries off the B. C. coast. They expressed the opinion that such vessels might have a real advantage on the halibut banks because of their greater load capacity, as well as in the Albacore fishery.

Refrigeration inadequacy and the fact that the boats had to remain at sea so long were major problems for the B. C. skippers. Members of the Fisheries Research Board suggest that a solution may be found by installation in existing boats of removable brine wells so that the Albacore could be frozen at sea and then stored in pens where mechanical freezing could be applied.

Considerable study of this problem is likely to be undertaken this winter.

Bill Furter Grateful To the Four Hulses

Bill Furter, whose home is at Hayward, Calif., recently purchased the fishing boat *Seafarer* at Moss Landing, Calif. He installed a new engine and was aided greatly in the process by four Seattlers, so much so in fact that he has written *Pacific Fisherman's News* about the help they gave him and his appreciation.

The four were Jim Hulse, Bill Hulse, Tad Hulse and Ed Hulse, owners and operators of the *Sun Up* and the *Danube II.*

Southern California Receipts

	Albacore	Bluefin	Skipjack	Yellowfin	Bonito, etc.	Total
San Pedro	19,882	4,146	17,662	80,482	125	122,297
San Diego	3,954	332	8,818	10,788		23,892
Total 1960 through Sept. 10	23,836	4,478	26,480	91,270	125	146,189
Total 1959	17,920	7,252	52,723	77,357	417	155,669
Total 1958	18,338	14,011	47,723	83,188	2,025	165,285

USBCF Queries Fisheries On Radiation of Seafoods

● Preservation of fish and seafoods by radioactivity is considered close enough to being practical for the U. S. Bureau of Commercial Fisheries to begin sounding out the industry on the subject.

A series of questions was being put to key people in the industry and in consumer groups to get their views as to how ionizing radiation could be introduced into practical packing and merchandising of fish and seafoods.

In asking the questions, it was pointed out by Clarence Carlson, then acting Southern California project director of the Bureau, that ionizing radiation is particularly successful when applied to fish and seafoods. For instance, Mr. Carlson's statement said, the shelf life of fresh cod, flounder, haddock, sole, halibut and other varieties can be extended one to four weeks over normal, without loss of flavor, odor or texture. Similar success has been met with lobster, crabs and shrimp.

Under the President's "atoms for peace" program, the Atomic Energy Commission, Mr. Carlson said, is planning to expand research in this direction. As part of its program, the commission is consulting with industry people to find out how this newest method of preserving foods best fits into practical industry procedures.

Among the questions are:

1. Where in the production-distribution chain would radiation best fit?

2. What would be preferable, a central radiation plant or mobile units?

3. How much would processors be willing to pay for radiation? (It is roughly estimated that the cost would be 1¢ per lb.).

4. How would consumers react to radiated fish? What would be their attitude toward fish labeled as radiated?

5. What varieties of fish would gain most from radiation?

6. Would radiation result in a better market for varieties not now widely sold?

7. Fisheries Bureau men are in the field, Mr. Carlson said, making personal queries in addition to written ones.

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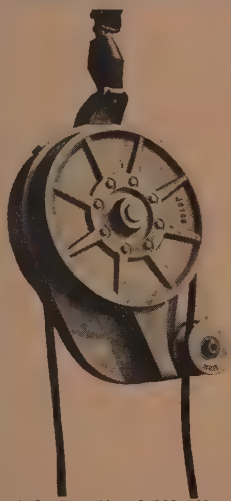

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SINCE 1903

Coho Scarcity Stimulates Controversy and Proposal For International Treaty

● Scarcity of Silver salmon in the early autumn catches of Puget Sound and British Columbia produced real concern, from the standpoint of conservation as well as of the commercial catch.

Out of this concern grew some stern measures designed to salvage a satisfactory escapement from the scant run; and out of the stern measures erupted some bitter controversies.

Sketchy character of the Silver or Coho salmon run this fall is shown by the authoritative pack figures issued by the Canadian Department of Fisheries. The data for Sept. 24 showed 61,732 full cases packed, as compared with 200,298 cases in 1959 to closest date; 109,007 in 1958; 184,474 cases in 1957; 171,964 in 1956; 162,669 in 1955.

Possibility that the problem could be cyclic was indicated by the pack of "Bluebacks," the Canadian name for small Coho salmon, of which the 23,397 cases packed to Sept. 24 were more than twice the volume of any previous year back through 1955, to closest date in each year.

● Seeking Silver salmon escapement, Milo Moore, Washington director of fisheries, closed fishing in Puget Sound and adjacent waters; and called upon the Canadian authorities to close fishing in the Strait of Juan de Fuca.

When the Canadian authorities did not feel warranted in complying, Mr. Moore re-opened to limited fishing waters in the extremity of American jurisdiction along the international border, and above any Washington streams into which Silvers migrate. Thus any Silvers taken would be dominantly those headed for the Fraser River, in Canada.

Canadian opinion was aroused sharply; and so was that of Washington purse seiners, who could not participate in the opening, and who generally demanded complete closure in the interest of conservation.

● Out of the entire controversy came a renewal of the demands that Canada and the United States give consideration to bringing Silver salmon under a bilateral international treaty, as they have done with the Sockeye and Pink salmon passing through boundary waters.

More will undoubtedly be heard of these proposals in the next few months, certainly at the Pacific Marine Fisheries Commission meeting; and possibly at the conference of the International North Pacific Fisheries Commission in Vancouver in November.

American salmon trollers have been urging international control of ocean fishing for Silvers for years, and may be expected to renew the proposals this fall, following the most disastrous fishing season this form of gear has ever experienced.

● A leading British Columbia newspaper makes a specific point of the proposal. In an editorial in its issue for September 14 the Vancouver *Sun* said:

"Common sense says Canada and the United States should put Coho salmon under the same international regulation that protects Sockeye, Pink salmon, and West Coast halibut.

"The yammering between Canadian and American fishing authorities over Coho is childish.

"The two countries have led the world in agreements to preserve and rebuild fish crops. They've saved Sockeye, Pinks and halibut from extinction by regulating competitive fishing . . .

"It wasn't idealism that led to these agreements. It was self-preservation.

"Self-preservation now argues for extending the salmon treaty to cover Coho. The plain fact is that neither country can protect this species on its own when it moves through the waters of both countries.

"Either country can seriously deplete the Coho crop by over-fishing. If the other country attempts to retaliate, that only increases the damage."

● *Substituting only Sockeye for Coho, Miller Freeman, John P. Babcock or A. L. Hager could have written that editorial 40 years ago as they struggled to bring into being the treaty which saved the Fraser Sockeye, to the inestimable economic benefit of both nations; and with benefit as well in conserving their comity and concord.*

K. Nakabe Takes Post In Japanese Section

Pacific Fisherman Staff Report

TOKYO — The Japanese Section of the International North Pacific Fisheries Commission at the 1960 conference in Vancouver, B. C., will have Kenkichi Nakabe, president of Taiyo Gyogyo K.K., as the industry commissioner, succeeding Koichiro Kobayashi, president of Nichiro Gyogyo K.K.

Other members will be Kenjiro Nichamura, director of the Japan Fishery Agency; Mr. Mori, director of the American Bureau, Japan Foreign Office; and Iwao Fujita, vice president of the Japan Fishery Society, who is expected again to be the section's spokesman.

The section will be accompanied by a party of advisers and scientists.

The delegation apparently feels that, while there are a few subjects which may produce some warmth, most interest lies in the forthcoming revision of the treaty itself, which expires in June, 1963.

(EDITOR'S NOTE — Language of the final paragraph above is published as the dispatch was received from Japan. It should be noted, however, that the North Pacific Treaty does not expire June 12, 1963, but that on that date it will have been in effect 10 years. Thereafter it continues in effect until one year from the day, whenever that may be, that one of the contracting parties gives notice of intention to terminate the convention.)

Croker Honored

Richard Croker, chief of the marine resources branch of the California Department of Fish & Game, is the new first vice-president of the American Fisheries Society. He was elected at a meeting of the national body in Denver in September.

Mormac Corporation principals and their non-resident helper. From the left, Denton Moore and Gordon McCormick, with Paul Helmcke of Everett, Wash., who assisted them in getting the new hand cannery into operation.

MORMAC CORPORATION —

Bristol Bay's New Two-Family Cannery Operation

● Newest salmon cannery on Bristol Bay is that of the Mormac Corporation, located at the mouth of Munson Creek, on the open coast just north of the Naknek River entrance.

It is also the smallest cannery in this Red salmon region of Alaska, but it got into operation under favorable auspices in the big Red run of 1960.

The company is owned by Alaskans — Denton Moore and Gordon McCormick and their wives; and the four adults of the two families constitute at once the source of fish and the cannery crew.

In its initial season in 1960 the company had the technical assistance of Eugene C. Scheerer of the Scheerer Canning Co., Everett, Wash., and Paul Helmcke of that company's personnel.

The Mormac cannery consists of a large Quonset unit set on a low bank, safely above the beach. Each of the two families operating it has a separate dwelling, and that's about it. Mail address is Box 105, Naknek, Alaska.

They catch the fish, they do the work, and attend to other jobs as well, for Mr. Moore is business manager of one of the local resident fishermen's organizations, and publishes a fishermen's newspaper in his spare time, if any.

● Fish supply for the Mormac plant comes from four set nets, one each for the four adults in the two families. At the peak of the 1960 run a single set net easily supplied all the fish the company could can. Any surplus is disposed of to the trucks operated by other companies in picking up set net fish from the beach.

Salmon from the set nets are carefully washed by hand and then hauled from the beach to the cannery building, where they are discharged into an interior bin with capacity for 2,000 salmon. Located outside the building at this end is a Knowles Belt-Ice machine, whose output can be delivered either to the truck and trailer or into the bin with the fish.

From the bin the fish are pitched into a small hopper from which they are drawn to the table where they are butchered by hand and then slimed.

Fish are cut to length on a single-blade power knife, the thickness of the slice being set either for ¼-lb. or 4-lb. can height, these being the two sizes packed in the plant.

The cans are hand-packed, with one Red salmon filling a 4-lb. can exactly in most instances. In any case, each can of this size is weighed individually.

● Cans are closed on a semi-automatic Rooney seamer, which can be adjusted to handle either size packed in the plant.

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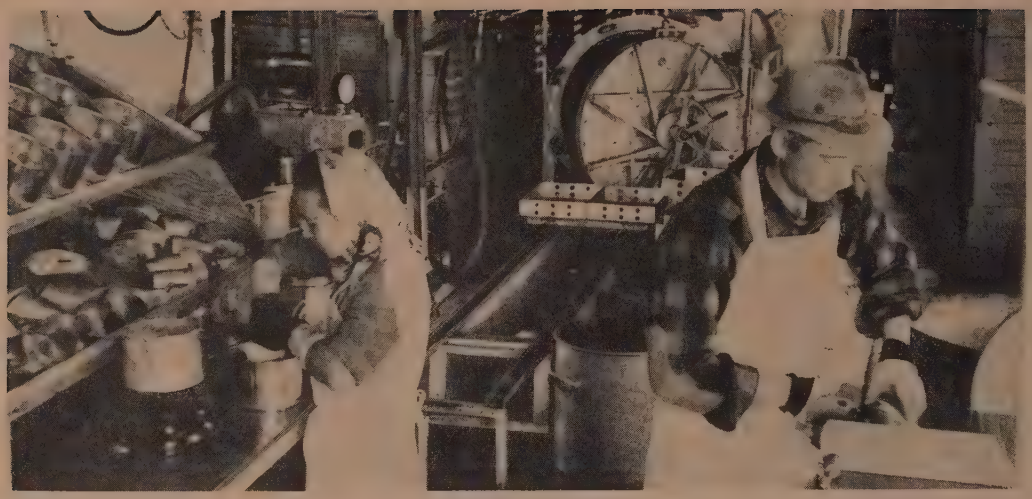

Hand Cannery Operation at the Mormac Corporation plant, Naknek, Alaska. On the right, Denton Moore cuts salmon to can height on a single-blade power knife. On the left, Mrs. Gordon McCormick carefully hand fills 4-lb. cans for cooking in the retort in the background. Casing and warehousing space in the right rear.

Seamed cans are planed in small coolers which hold six 4-lb. cans; with 10 of these coolers to a retort can. Retort capacity is 35 cases. The pressure vessel is a double-ended one of Republic manufacture. When the cook is finished the retort cars are pushed on a track through the inshore end of the building to cool. When cooling is complete, the cars are withdrawn into the building and the cans are cased in the warehouse section.

Plant capacity, with the two families plus one additional worker is about 1,000 fish a day—83 cases of 4-lb. tins.

Process steam is provided by a Kerrick steam generator. Electric power is generated by an International diesel-generator unit.

Compressed air is employed to maintain 4-lb. can form during the retort blow-down period.

● Pack of the Mormac Corporation is marketed by Pan-Alaska Fisheries, Dexter Horton Building, Seattle.

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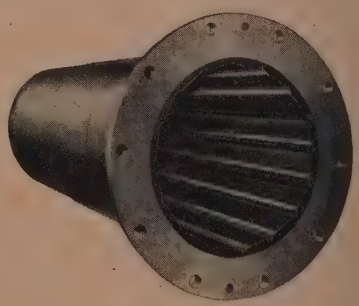

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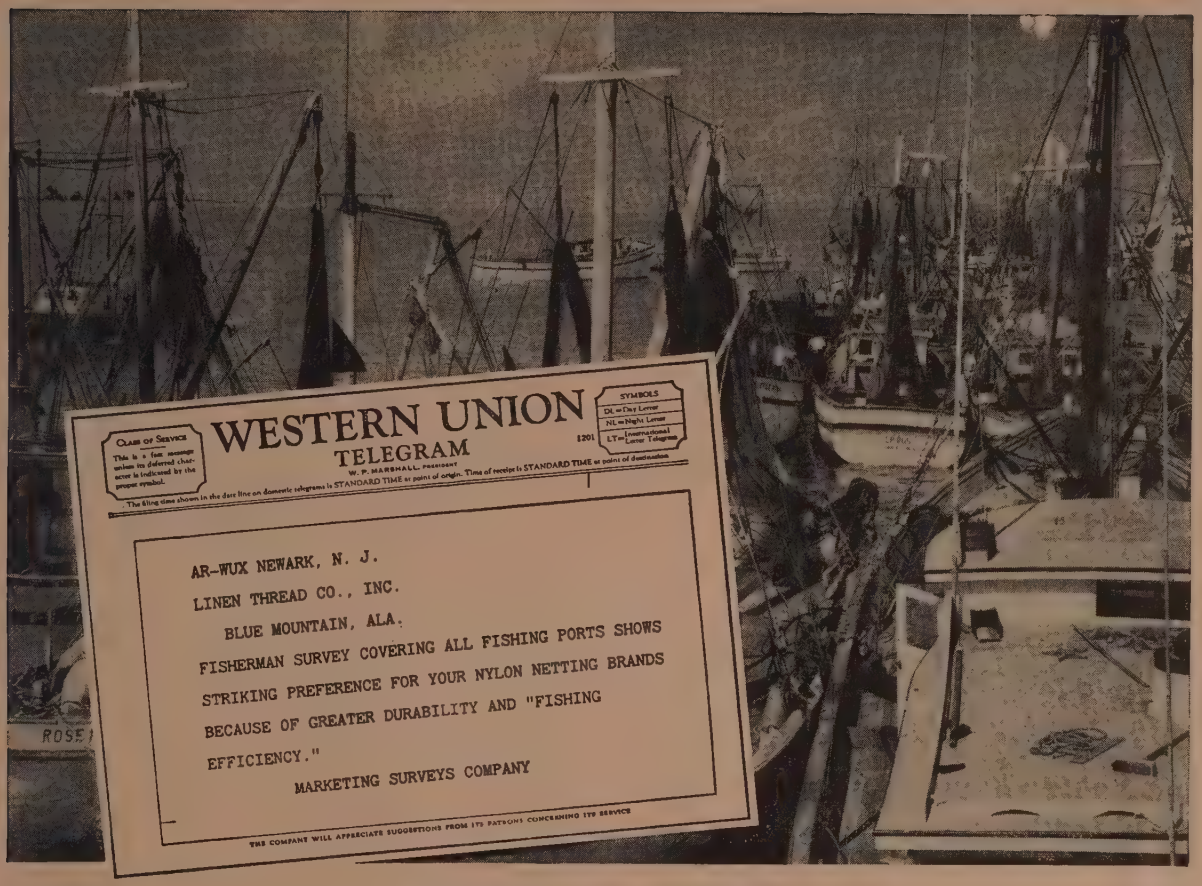
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FOOD FISH MARKETING

Section of PACIFIC FISHERMAN —

News and Views of National Trade in Fish and Shellfish

October 1960

Now You See Nearly All Of Canned Salmon Supply

● Save for the ultimate volume of fall Chums which will be available, and the clearing-up of some obscure points with respect to Japan's actual quantity of Pinks, the North American canned salmon supply picture was complete by the end of September.

To that time there had been no surprises in early autumn developments. Pinks were sure to be short in the extreme; and Cohoes would be relatively as bad or worse.

Chums from Alaska were available in moderate supply, but were expected to melt away under the demand for Pink substitutes. Fall Chums from the one-day-a-week open seasons in Southeast Alaska were insignificant in their contribution.

Would the fall Chum run on Puget Sound and in British Columbia supplement the supply of that grade?

This was a question still to be answered at presstime; and it won't be plain until mid-November.

There were no early indications of a good run of late Chums, but you never can tell.

One thing, however, is very sure: the high prices and strong demand for the small supply of frozen Silvers and Chums will take the best and brightest of these fish away from the canners at prices which can't be matched even when canned Chums are commanding $22 *for prime summer quality goods.*

● So much for supply. Now what about prices?

Pinks have moved up a bit since last we quoted. Responsible packers with moderate supplies available now quote $26. There is some talk of $28 Pinks, and possibly someone caught short might pay this for market basket quantities, but the idea found little support in Seattle at the end of September.

Sales departments report a satisfactory movement of Reds into *distribution,* regardless of the $36 price tag displayed by most sellers. Whether this interest and willingness to pay what's necessary to get Red salmon will carry on to *consumption* is something else again.

Sellers generally are sanguine that it will, and that the pack will be marketed gradually and satisfactorily.

"Fishery Products Contribute To Health and Welfare of All"

—President Eisenhower

● President Eisenhower praises the "men and women of America's fishing industry," whose "work and skill contribute much to the health and welfare of us all," in a wire on National Fish and Seafood Week to the National Fish and Seafood Committee.

"In maintaining the high standard of nutrition enjoyed by our citizens," he said in his telegram to Richard Kulze, chairman of the committee, "the fishing industry will continue to play a major role." His telegram read:

> "The annual observance of Fish and Seafood Week provides an opportunity to salute the men and women of America's fishing industry. The products of their work and skill contribute much to the health and welfare of us all. In maintaining the high standard of nutrition enjoyed by our citizens, the fishing industry will continue to play a major role."

National Fish and Seafood Week, which this year occurs October 17 to 23, has been named by the fishing industry, in cooperation with the Bureau of Commercial Fisheries, U. S. Department of Interior, to call attention to the 200 fishery products available for American dinner tables.

Each year the fisheries become more important to American economy, as scientists look to our oceans, rivers and lakes to feed an ever-expanding population. Last year the United States catch was 5.1 billion pounds, the nation's second largest annual production, worth more than one billion dollars at the retail level.

Mid-October has been chosen for this special emphasis on commercial fishery products because at this time heavy catches of late summer and early fall are being frozen and canned, or sold fresh, throughout the United States. In all major cities, local committees of industry and Government men are being formed to acquaint the consuming public — both the housewife and the restaurant men — with the abundance of fish and shellfish.

A number of national suppliers to the fish and seafood industries joined in supporting the 1960 Fish Parade in their advertising. Early among such advertisements were those of the Gair Container Division of the Continental Can Co.

Star-Kist Enters Canadian Tuna Market

Star-Kist Foods, Terminal Island, Calif., has appointed Leo Burnett Co. of Canada to handle advertising in Canada for*Star-Kist* tuna and 9 *Lives* cat food, neither of which is currently marketed in Canada.

Star-Kist reportedly plans to spend more than $200,000 to promote the two products in Canada.

The Burnett agency handles Star-Kist advertising in the U. S.

L. M. Kaner, Sales Chief, Leaves Breast O'Chicken

Larry M. Kaner, vice-president in charge of sales for Breast O'Chicken Tuna, Inc., has resigned his position after being with Breast O'Chicken for almost 14 years, starting as a retail salesman in 1947. He had been vice president in charge of sales since 1956 and was also in charge of the company's advertising.

His extensive travels throughout the country have made him well-known in the food and grocery trade at national and local levels.

Mexico's Duty on Shrimp Exports Raised Sharply

The Mexican government has raised the export duties on shrimp coming out of the Republic, according to U. S. Empassy reports quoted in the Market News Report of the Bureau of Commercial Fisheries.

This was done, the reports said, by raising the official prices of shrimp, on which ad-valorem export duties are levied.

The increases were: About 1.89 cents per lb. on fresh or iced shrimp from the Gulf; about 1.73¢ per lb. from the Pacific; about .33¢ per lb. on frozen shrimp from the Gulf and from Salina Cruz and Santa Rosalia; and about .30¢ per lb. on frozen from other ports.

These raises bring the total export duty to about 13.4¢ per lb. for fresh-or-iced from the Gulf and 13.07¢ per lb. from the Pacific; 2.51¢ per lb. for frozen from the Gulf, Salina Cruz and Santa Rosalia; and 2.44¢ per lb. from other places.

At the same time, export duties on walking crab were raised to about 2.52¢ per gross lb., and duties on live turtles were cut to about .74¢ per lb.

The increases had no effect on Mexican shrimp prices. On the contrary, latest quotations showed a drop from 87-93 cents for 16-20 whites to 85-88, while prices of other sizes remained stable.

C.R.P.A. Sales at Top, As Profits Mark Gain

Record sales of $23,280,984 were registered by Columbia River Packers Association, Inc., in the fiscal year ended with April, 1960. The company's pack of 1,750,323 cases of canned fish and seafoods was also the highest in its history.

Net profits of $928,671 approached the all-time high, and were on a per-share basis of $3.44, as compared with $3.20 for the previous year.

Fresh & Frozen Fish Men Welcome H. E. Crowther

The Southern California Fisheries Assn., at a gala special dinner meeting last month, gave a rousing welcome to H. E. Crowther, who is in California from Washington on a year's tour of duty as area director, Bureau of Commercial Fisheries.

Mr. Crowther was honored guest at a special banquet arranged by Louis Vitale and Sol Baker of Los Angeles Smoking & Curing Co. The assembled fish dealers also saw a showing of TV commercial spots prepared under supervision of the BCF and broadcast by TV stations throughout the country on "public service" TV time.

Three new directors were elected unanimously, to serve through the year 1961: Bert Boyajian of Mel-Rox Seafood Co.; Norm Burgess, Norm's Seafood Co.; and Ronnie Jack of E. C. Jack Brokerage Co. The nominations were brought in by Doug Graham of Crest Importing Co., chairman.

Hugh Roberts of Lee & Associates, public relations counsel, described some of the new Seafood Week material, and Mike McGee of Los Angeles Smoking & Curing Co. reported that Seafood Week contributions this year may come to about $2000 more than last year.

Harry Reskin was warmly congratulated by all present on his recent promotion to general manager of Certi-Fresh Foods.

Oceanic Sales Co. in New Office Location

Oceanic Sales Co., Seattle canned salmon sales agency, is now located at 1726 Smith Tower, Seattle 4—the same building, but a different floor.

James Stephens, president, continues the business actively following the death some months ago of Jack Salmon, its long-time and well-loved chief.

KELLEY-CLARKE COMPANY ESTAB. 1895

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NORTHWEST TUNA

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TWO GREAT BRAND NAMES IN FROZEN FRESH SEAFOODS

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FRESHEST FISH IN THE FREEZER

More than 37 Delightful Frozen Seafoods in Both Brands

NOW VACUUM-PACKED STEAKS & FILLETS

IN SAN JUAN'S OWN FLAVOR-SAVOR RETAIL-SIZE PACKAGES

SAN JUAN FISHING & PACKING CO.
PIER 31—SEATTLE, WASH.

350,000 Cs. of Pinks In Japan Land Pack

Canned Pink salmon production of Japanese shore canneries is reported as approximately 350,000 full cases, plus minor quantities of Reds and Silvers.

The Japan Export Land-Pack Canned Salmon Manufacturers Association last spring set a production quota of 400,000 full cases. This was 50,000 cases under 1959, the odd-numbered Pink year, when the target actually could have been overshot.

The reduced Pink salmon catches from the sea adjacent to Hokkaido, plus the high price for fish, held the 1960 pack moderately short of the quota, according to data from the manufacturers association.

400 Tons of Alaskan Reds Sold to Japan

(*Pacific Fisherman Staff Report*)

TOKYO — Of three companies which sought to purchase frozen Alaska Red salmon for shipment to Japan for canning, only one succeeded in concluding such a transaction. This company, Marubeni Iida K.K., an Osaka trading firm, succeeded in purchasing 400 tons only out of its authorization for 1,000 tons.

According to reports in Toko, the price paid was $1,050 per ton, cif. Size of the individual fish was said to average 5 lbs.

The lot was due to be shipped from Seattle at the end of September, and is due in Kushiro the middle of October. It will be packed by two local canneries, and is expected to yield some 22,000 cases of 8 doz. quarter-pound cans.

The entire lot is to be shipped to the United Kingdom, and must be dispatched by the end of the year.

Wilbur-Ellis Handling "Deming" Line in S.F.

Robert E. Graham, executive vice president of the Deming & Gould Company, Bellingham, Wash., announces the appointment of the Wilbur-Ellis Company, San Francisco, to handle the complete line of Deming salmon and King crab in the San Francisco Bay area.

Wilbur-Ellis Company has been closely allied with various fisheries and fish products since its organization 39 years ago.

They have employed Walter P. Shiel, Jr. to head up the department handling the sale and distribution of the Deming & Gould line of canned seafood in the San Francisco area.

Soviet Fishing Sauries With Pumps Off Japan

A fleet unit of U.S.S.R. vessels was observed by Japanese fishermen working sauries with pumps off Shikotan Island September 13.

The Soviet operation consisted of a 10,000-ton class factoryship, accompanied by two 400-ton class fishing vessels, which were sucking the fish into their holds by means of pumps after the sauries had been schooled under powerful lights.

The Soviet operation this autumn was in the same general vicinity in which similar activity was detected a year ago.

Southern California Domestic Tuna Deliveries

Cumulative totals for 1960 through Sept. 10, in tons, as reported by U. S. Market News Service

	Albacore	Bluefin	Skipjack	Yellowfin	Bonito, etc.	Total
Clippers and Albacore Fleet	11,908	...	15,653	18,930	...	43,257
Purse Seiners	48	4,335	3,567	52,329	125	58,303
Total 1960 through Sept. 10	11,956	4,335	19,220	70,782	125	101,560
Total 1959	9,753	7,029	45,729	44,017	417	106,945
Total 1958	10,118	13,688	43,379	54,315	2,020	124,520

Seattle Market

Market prices currently quoted at presstime by Pacific Northwest brokers and cannery sales department, cases of 48 tins, unless otherwise specified, good quality, as reported by the U. S. Bureau of Commercial Fisheries, Market News Service.

Items and Packages

Puget Sound	**Per Case**
Sockeye, halves	$ -25
Sockeye, quarters	-15
Alaska	
Red, talls	35 -37
Red, halves	23 -25
Pink, talls	26 -27
Pink, halves	14.50-15
Pink, 4-lbs. (12)	-27
Med. Red, talls	30 -32
Med. Red, halves	19 -20
Med. Red, quarters	13 -13.50
Chum, summer, tall	22 -23
Chum, summer, halves	-12.50
Chum, fall, 4-lbs. (12)	-24
Chinook, talls	29 -32
Columbia River	
Blueback, halves	26 -27
Blueback, quarters	14.50-15
Chinook, fancy, halves	26 -27
Chinook, fancy, quarters	14.50-15
Chinook, choice, halves	-18.50
Chinook, choice, quarters	-11.75
Tuna, Northwest Pack—	
Albacore, fcy., 7 oz.	-12.00
Yellowfin, s/pack, 7 oz.	-10.50
Yellowfin, chunk, 6½ oz.	9.50- 9.85
Tuna, Columbia River Pack	
Albacore, fcy, 7 oz.	14.85-15.25
Albacore, fcy., 3½ oz.	9.10- 9.15
Albacore, chunk, 6½ oz.	10.50-13.25
Albacore, chunk, 3 oz.	6.50- 8
Lightmeat, fcy., 7 oz.	14.25
Lightmeat, fcy., 3½ oz.	8.55
Lightmeat, chunk, 6½ oz.	11.00
Canned Shrimp—	
Northwest: 4½ oz. wet pack	- 7.25
Alaska: Tiny (over 17 per oz.)	- 7.25
Small (10-17 per oz.)	- 8
Medium (6-9 per oz.)	-10
Canned Crab	
Dungeness, 24, 6½ oz.	13 -13.25
Dungeness, 24, 3½ oz.	- 8.25
King, fcy., 7½ oz.	-32
King, std., 24, 7½ oz.	-16.10

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CANNED and FROZEN FISH
New Season Underway
OCTOPUS FOR BAIT
Contact us for Supplies
P. O. Box 278, Bronxville, N. Y. Tel: DE 7-6322
TWX: NY 1-625 Cables: FISHSTIX NEWYORK

J. R. Barry, president, California Fish Canners Association, affixes **Hope Project** emblem while the Association's Executive Director **C. R. Carry** completes stacking of first pallet load of canned tuna and sardines donated to Hospital Ship **Hope I.** The canned fish will help to provision the ship for a full year's cruise to Southeast Asia.

California Imports of Frozen Tuna

Cumulative data in tons for 1960 through Sept. 10, and for other years to the nearest comparable date. Data from U. S. Market News Service

	Albacore	Skipjack	Yellowfin	Unclassified	Total
San Francisco	1,608	260	7,605	417	9,890
San Pedro	9,503	6,513	19,409	126	35,551
San Diego	2,627	747	1,079	17	4,470
Total to Sept. 10	13,738	7,520	28,093	560	49,911
1959	9,423	7,192	40,325	223	57,163
1958	10,623	4,734	34,097	328	49,782

Japan's Atlantic Tuna Sales Reform Expected

Crumbling of the Italian market for frozen tuna produced by Japanese fishing vessels operating in the Atlantic Ocean, and adverse effect on shipments to the United States market through intermediate ports, is reported to have led tuna freezers in Japan to recognition of necessity for reform in the present system. The Fisheries Agency of the Japanese government is believed to share the view.

It is believed this may involve transporting to Japan for market certain species and sizes esteemed there more than in the European or American markets.

To permit this it is anticipated that a refrigerated warehouse may be sought on the west coast of Africa, where operators of Japanese tuna fishing vessels could sort their catches into categories which could be marketed to best advantage in the U. S., Italy and Japan.

Until such a facility becomes available, it is possible that distribution of the Atlantic catches will be handled through Japan.

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John S. McGowan Advances As CRPA Executive

John S. McGowan in September was advanced by the director of the Columbia River Packers Association, Inc., to the new office of executive vice president.

With life-long background in Columbia River salmon canning, Mr. McGowan is a grandson of P. J. McGowan, one of the early leaders of salmon canning. He joined Columbia River Packers Association in 1946 and in recent years, as vice president, he has handled production, sales and advertising for the company.

Another change in administration of the company saw C. Howard Lane elected Chairman of the Board to succeed the late Ted R. Gamble. Mr. Lane is executive vice president of the Mount Hood Radio and Television Broadcasting Corporation, Portland; and president of the Astoria Broadcasting Co.

Officers of the company were reelected as follows: T. F. Sandoz, president; J. M. Gizdavich, H. D. Hart, J. D. Hendrickson, R. B. Hendrickson, J. F. Hoaglund and F. S. Sandoz, vice presidents; A. V. Cellarsa, secretary; W. N. Siegmund, treasurer; S. B. Lund, assistant secretary; E. H. Nelson, assistant treasurer.

Isn't there more profit in selling shrimp...

than there is in selling shells?

The Peelers Co. specializes in automatic shrimp peelers, deveiners and graders.

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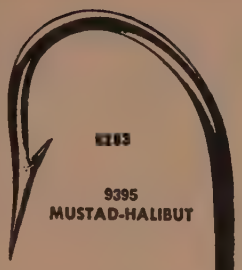
THE PEELERS CO.
619 S. Peters St. • New Orleans, La.
Write, wire or phone

When you consider the number of years we have been making Mustad fish hooks and the millions of fishermen who continue to use them we think you will agree that Mustad fish hooks MUST be superior. Give Mustad fish hooks a trial. Ask your fishing supplies dealer.



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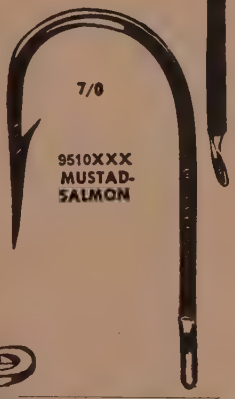

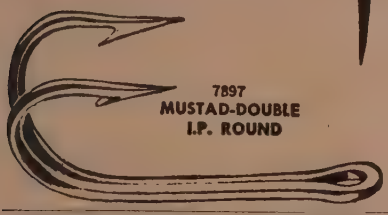

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SAVE TIME! CUT COST!

F-701 TYPE PROVIDE FULL BOTTOM DETAIL

D. C. 12V Power Source.
RANGE : 0– 50– 100– 150– 200 Fms.

FURUNO FISH FINDERS [illegible]
for locating fish shoals and for examining the bottom.

FURUNO ELECTRIC CO., LTD.
Cable: "FURUNO KOBE"
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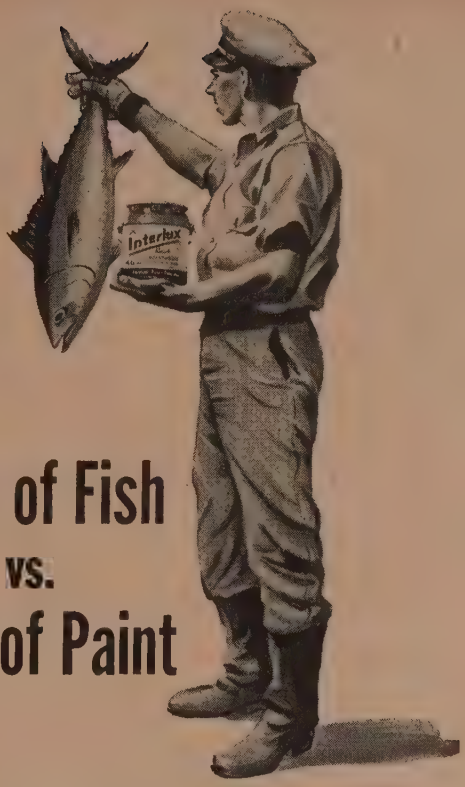

Cost of Fish VS. Cost of Paint

Just consider what the antifouling properties of a good bottom paint can do for you. A clean hull drives easily. A foul hull can use up to 10% more fuel. A clean hull gets you where the fish are, quicker, and gives you more time for fishing. Now consider the lasting qualities of the bottom paint. Longer time between haul-outs, lower cost for painting per year and more worktime for your vessel. This all adds up to the reason why you should use "SUPER-TROP" Antifouling Bottom Paint made by International Paint Company, Inc., specialists for over 70 years in the making of Marine Paints. Send for free descriptive folder.

FOR METAL BOTTOMS
INTERNATIONAL has developed a combination of a primer and an antifouling paint that offers the maximum protection and preservation of metal bottoms. Send for the two circulars, "SILVER PRIMOCON" and "SUPER-TROP"

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21 West Street, New York 6, N.Y.
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WORLD'S LARGEST MARINE PAINT MAKERS

International Paint Company, [Cal.] Inc.

500 Join Nick Bez in Half-Century Party

Some 500 friends joined Nick Bez, Seattle fisheries operator, September 15 in observance of the 50th anniversary of his arrival in the U. S.

As are so many of the things Mr. Bez does, the occasion was widely notable. Men came from the Orient, the South, the East, and the North to join in the anniversary observance.

They felt in that hour something of the drama and struggle and long, strong rise of the man who, as a boy of 14, had landed in the United States from Yugoslavia, virtually penniless.

Today bankers rate him readily as a millionaire, many times over.

More specifically, he is president of P. E. Harris Co., one of the leading factors in American salmon canning and canned fish marketing; president of West Coast Airlines; and president or principal of numerous other productive business undertakings.

The man made it in fishing, in which he has engaged continuously for 50 years; and among the friends who joined him in his anniversary celebration, along with the great industrialists and financiers, were dozens of men who had fished with him and for him through many of those 50 years.

Ken Williams Is 22nd Chief of Fish Divoteers

Ken Williams, of Dehn & Co., Seattle, was chosen as the 22nd president of The Fish Divoteers at their annual fall golf tournament at the Rainier Golf & Country Club in Seattle, September 9. He succeeds C. E. "Bud" Moore, Fisheries Division, Branch of Market Development, U. S. Fish & Wildlife Service, Seattle.

Other officers elected for the ensuing year were Paul Staley, Seattle Seafoods, vice president; Jim Stephens, Oceanic Sales Co., secretary; and Harry Backman, Sayre & Toso, Inc., treasurer.

With a near record turnout of 146 golfers, competition was keen for the perpetual trophies and prizes awarded at the evening's festivities which were enjoyed by 183 members and guests. President "Bud" Moore presided, while Mike Storniola, Grace Line, Inc., enlivened the prize awarding period as master of ceremonies. The anecdotes and impersonations of Fred Gosse, F. A. Gosse & Co., were in the show-stopper class.

The perpetual trophy for low net in the first division went to Jack Burness, Container Corporation of America, with low gross honors going to Sam Rubinstein, Whitney & Company.

In the second division the perpetual trophy was won by Vance Sutter, Fidalgo Island Packing Co., with the award for low gross going to Bob Ennis, North Pacific Seafoods.

William Hingston, Washington Fish & Oyster Co., won the perpetual trophy for low net in the third division. Low gross went to Eldon Erickson, N C Machinery Co.

Competing in the guest division, Ray McLean, Pacific Northern Airlines, was the low net winner, with the low gross award going to Bill Schmitz, Kayler-Dahl Fish Co.

The perpetual "Cup of Champions" for low net in all divisions was won by William Hingston with a 65. This new trophy has decorated the mantel of Bob Ennis since the spring tournament.

Direction of the tourney was in the able hands of Harry Backman, as chairman, assisted by Barney McCallum, Griffin Envelope Co., George Skarich, Colorado Fuel & Iron Corporation, Alf Larsen, Vendsyssel Pacific Company and Phil LeDuc, Fibreboard Paper Products Corporation.

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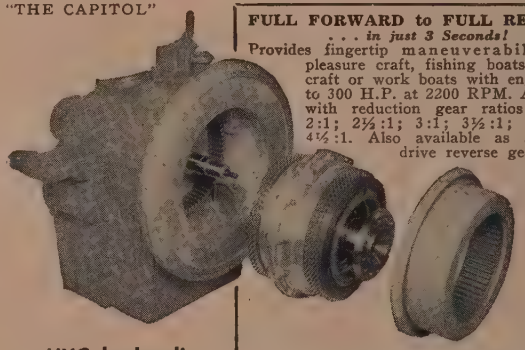

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Reverse and Reduction Gear
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FULL FORWARD to FULL REVERSE *. . . in just 3 Seconds!*
Provides fingertip maneuverability for pleasure craft, fishing boats, harbor craft or work boats with engines up to 300 H.P. at 2200 RPM. Available with reduction gear ratios 1½:1; 2:1; 2½:1; 3:1; 3½:1; 4:1 and 4½:1. Also available as a direct drive reverse gear.

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MARINE POWER AT ITS BEST
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Available from 30 hp to 155 hp
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FTC Will Probe Shrimp Industry

The Federal Trade Commission announced last week that it will undertake an investigation of the U. S. shrimp industry—its second within a year—as directed by the Senate Finance Committee.

Under the Tariff Act of 1930 (amended) the Commission carries out these investigations at the request of Congressional agencies, when there appears to be danger to a domestic industry because of excessive or uncontrolled imports from abroad.

The shrimp industry has for some time felt that its existence is threatened by competition from imports.

A public hearing, at which interested parties may speak their minds, is to be held January 9, 1961, in the Tariff Commission's hearing room in Washington, D. C.

The first shrimp investigation made by the FTC this year came to nothing when the commission found that the situation in the industry did not warrant recommending import tariffs or quotas on incoming foreign shrimp. If, however, the coming investigation finds that the industry is in jeopardy, the Commission may suggest tariff or quota relief by Executive action.

The Senate Finance Committee resolution directing the coming investigation directs the Commission to consider what the results would be of imposing a quota under which an ad-valorem duty of 35% would be imposed on imported shrimp over and above the total of 1960 imports.

Alaska Herring Quota Liberalized by ADF

Full regulatory quota of 32,500 tons of herring from Southeast Alaska was made available to the industry in mid-September when Walter Kirkness, director of the Commercial Fisheries Division of the Alaska Department of Fish and Game, announced that a restriction would be eased. The written regulations stated that 10,000 tons of this quota must be taken after July 15 in that part of the Eastern and Western districts south of a line from Swain Point to the northern entrance to Snipe Bay. However, due to three reasons, the regulation was changed. These were:

1. The populations of herring are at an abundant level.

2. Weather conditions preclude filling the existing quotas in outside waters.

3. Filling of the existing quotas is vital to the welfare of the industry and in good keeping with the proper utilization of the resource.

The Great Atlantic & Pacific Tea Co. • Jos. Schlitz Brewing Co. • St. Luke's Hospital • Tropicana, Inc. • Armour & Co. • Neil House • The Fish Meal Co. Standard Brands, Incorporated • Coca-Cola Co. • The Borden Co. • Swift & Co. Sperry Candy Co. • Union League Club • Miller Brewing Co. • Carnation Company • The Kroger Co. • Minute Maid Corp. • The Seven-Up Bottling Co. Wilson & Co., Inc. • Sealtest Foods • Anheuser-Busch, Inc. • Foremost Dairies, Inc. Rath Packing Co. • Pepsi-Cola Co. • Marine Bank • Falstaff Brewing Corp. Pet Milk Co. • Norbest Turkey Growers Assn., Inc. • Merchants Refrigerating Co.

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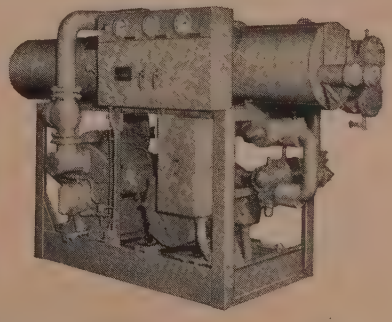
With a complete line of industrial and commercial refrigeration and air conditioning equipment, Vilter can provide a system to exactly fit your needs.

Packaged water chillers for air conditioning.



Multi-cylinder, vertical or rotary compressors for refrigeration and air conditioning.

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C. R. Boll, left, is the newly appointed executive vice president, marketing, for Cummins Engine Co. **R. W. Franck** is the company's new vice president, sales.

Bendix Automatic Pilot Offered in Improved Form For Pacific Fishermen

Modified and improved, Bendix-Marine are again in production of its low-cost Model 125B Automatic Pilot. First introduced nearly 10 years ago as the Model 125, the pilots found wide acceptance among boat owners wanting an extremely simple, rugged and dependable system. The Model 125B incorporates all the latest engineering in the compass unit that has made the Model 14 the leading auto pilot in use today.

Three units comprise the system: the binnacle, steering motor which has manual clutch for engagement, and the small control unit that includes the on/off switch, weather sensitivity control and provision for a remote course-changing and dodging accessory.

The Bendix Model 125B is available for either 12 or 32-volt systems, and is priced at $425.00.

Stay-Tite New Caulking Is Rubber in Putty Form

Butyl Caulking Compound is rubber in putty form. Recently developed by Stay-Tite Products Company of Cleveland, Ohio, it is easy to apply with a caulking gun or putty knife, provides a watertight seal, and will stay elastic for the life of the boat, working with the wood and not cracking out.

Developed for use in hull seams, all bedding needs including the fitting of plywood planking to the frames, double plank work, lap strake construction, glazing of windows and bedding of ports, and setting of transoms. In fact it meets so many requirements so well, it is truly a multiple purpose compound. Stay-Tite Butyl Caulking Compound has strong adhesion to wood yet its soft characteristics permit damaged members to be readily removed for replacement. Excellent adhesion is obtained to steel and fiberglass. Clean up work is easily done with mineral spirits or kerosene.

SERVING STAR-KIST FOR 10 YEARS

Congratulations to Star-Kist Foods on its magnificent new Caribbean plant!

We are proud of our contribution to its up-to-date equipment.

Crews Evaporator & Drier Co.

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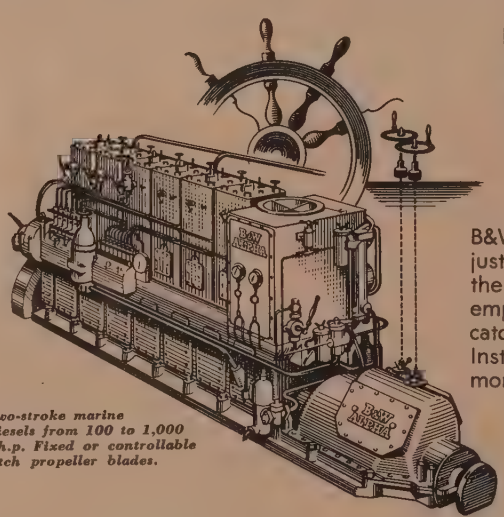

Two-stroke marine Diesels from 100 to 1,000 b.h.p. Fixed or controllable pitch propeller blades.

B&W Alpha

B&W ALPHA Diesels carry their own built-in maintenance; just a routine trip down to check fuel and lubrication, and the rest of the time every man on board can be usefully employed in the business of getting there, making the catch, and getting home again.
Install a B&W ALPHA Diesel this time . . . and get more time for the business of making money.

BURMEISTER & WAIN AMERICAN CORPORATION

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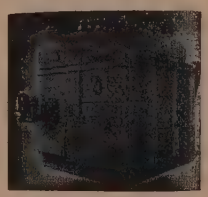

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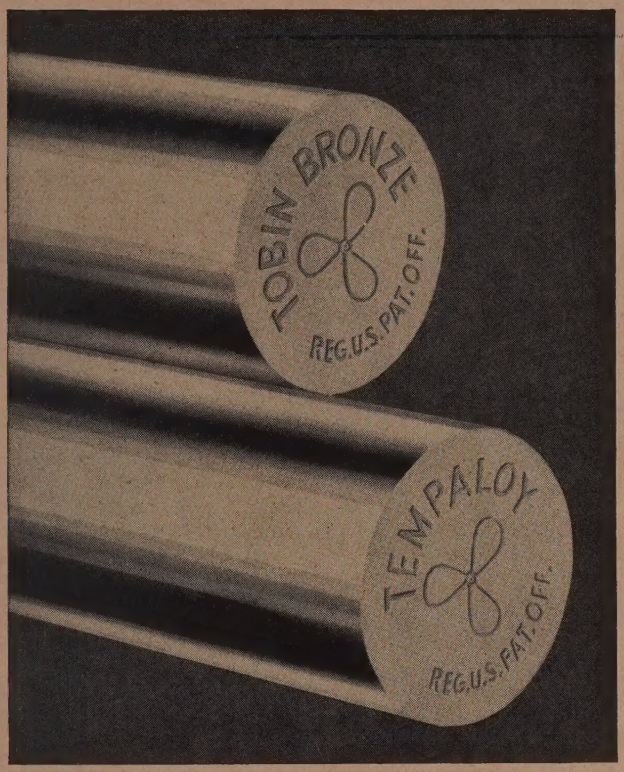


TOBIN BRONZE® Shafting has proved itself through its performance on thousands and thousands of pleasure boats, fishing and other commercial craft. It is this record of dependability that has made it first choice of boatbuilders and boatowners.

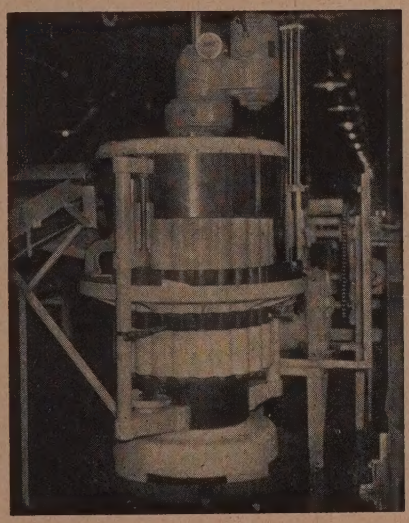
TEMPALOY®-917, nickel-aluminum bronze shafting, was developed by Anaconda American Brass for uses requiring extra-high strength. Repowering with higher horsepower engines often means replacing original shafting, too. Tempaloy usually provides the needed extra strength with no increase in shaft diameter — saving costly alteration of bearing, stuffing box and housing assemblies. Features: toughness and high yield strength—high resistance to shock — excellent corrosion resistance — lighter weight — special straightening — close diameter tolerances — individually wrapped and trade-marked—reasonably priced.

Both Tobin Bronze and Tempaloy propeller shafts are available through leading marine supply distributors. For information, see your distributor or write: Anaconda American Brass Company, Ansonia Division, Ansonia, Conn. District Sales Offices: Los Angeles, Calif., at 14900 Garfield Ave., Paramount—Oakland 12, Calif., at 360 22nd St.—Seattle 1, Wash., at 1311 Tower Bldg. 5988PFL

ANACONDA®

PROPELLER SHAFTING
MARINE BRASS AND BRONZE
EVERDUR® FOR FASTENINGS AND FITTINGS
Anaconda American Brass Company

The PAK-FORMER



Leading tuna canners are now using the PAK-FORMER for their Chunk and Grated Style Packs. A variable speed drive permits filling speed adjustments of between 140 and 250 cans per minute. Available to the industry under similar terms as our PAK-SHAPER.

For Complete Information Write to

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METAL CANS SERVING MAN FOR 150 YEARS • 1810 1960

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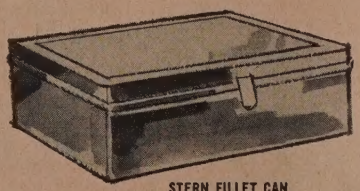

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1 GALLON CLAM AND OYSTER

This year marks the 150th Anniversary of the Metal Can Industry and the 59th year in which Stern has been producing cans to bring greater efficiency and economy to business.

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FEDERAL'S "SHRIMPER"

ranks ACE-HIGH with boat builders and owners alike

Literally hundreds of shrimp boats, trawlers and other work boats have been equipped with these splendid, specially designed wheels. Both builders and owners know from experience that when properly matched to hull and engine, these wheels provide outstanding performance. They know, too, that FEDERAL'S "B" bronze is definitely superior in corrosion resistance, repairability and length of service to ordinary bronze. And they are also available in steel, stainless steel, and Ni-Bral.

FEDERAL propellers are made in 3, 4, and 5-blade models, in addition to the 4-blade "SHRIMPER", in all standard sizes through 72". One of them can provide your craft with the most in performance and service that you have ever experienced. We'll be glad to furnish you with a FREE, expert recommendation of the wheel that will do just that if you will simply write to us asking for a copy of our "PROPELLER ANALYSIS" form.

FEDERAL PROPELLERS

GRAND RAPIDS 2, MICHIGAN

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MAXIMUM SAFETY TO FISHERMEN!

GREATER CATCHING POTENTIAL!

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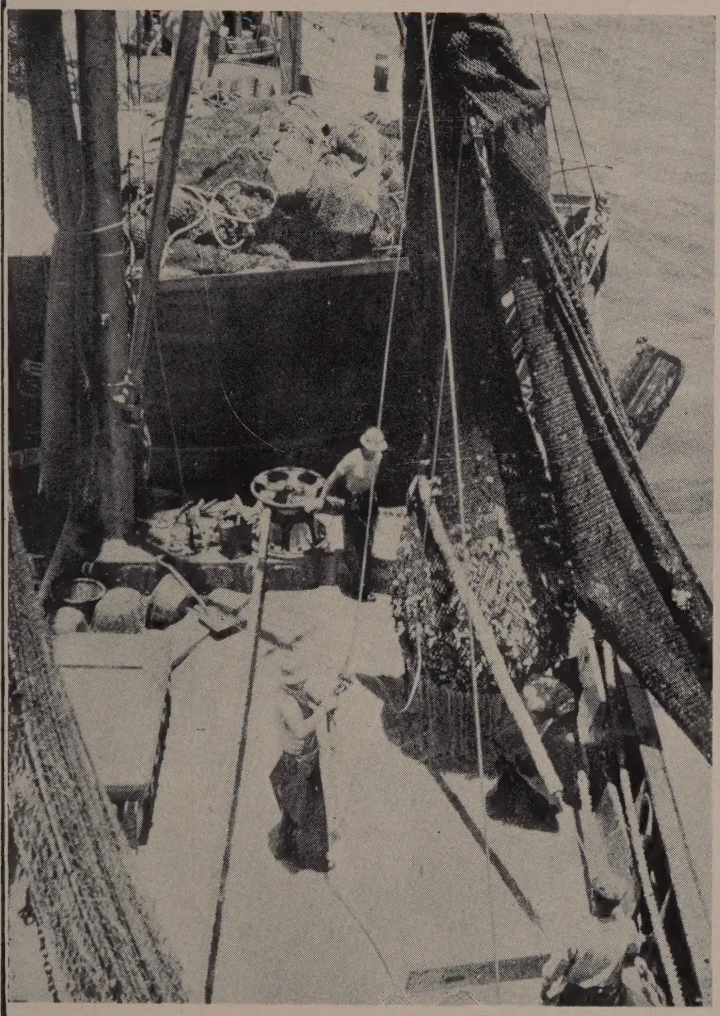

Wider safety margin from -

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- Easy Handling

Increased catch from -

- Less Resistance to Currents
- No Need of Drying
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.....together with Rot Proof • Strong Sunlight Resistance • LOW COST, all of which make "MANRYO" the indispensable netting for any fishing boat.

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WAUKESHA DIESELS bring in the FISH!

FISHERIES PATROL

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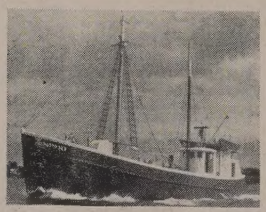

NORTH ATLANTIC

GULF COAST

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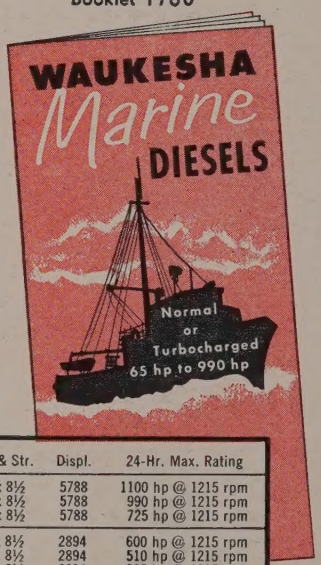

Engine	Type	Cyls.	Bore & Str.	Displ.	24-Hr. Max. Rating
RELIANCE	Turbo and intercooler	12	8½ x 8½	5788	1100 hp @ 1215 rpm
	Turbo—non-intercooled	12	8½ x 8½	5788	990 hp @ 1215 rpm
	Normally aspirated	12	8½ x 8½	5788	725 hp @ 1215 rpm
DEFENDER	Turbo and intercooler	6	8½ x 8½	2894	600 hp @ 1215 rpm
	Turbo—non-intercooled	6	8½ x 8½	2894	510 hp @ 1215 rpm
	Normally aspirated	6	8½ x 8½	2894	335 hp @ 1215 rpm
WANDERER	Turbo—non-intercooled	6	7 x 8¼	1905	315 hp @ 1215 rpm
	Normally aspirated	6	7 x 8¼	1905	240 hp @ 1215 rpm
RESOLUTE	Turbo—non-intercooled	6	6¼ x 6½	1197	290 hp @ 1600 rpm
	Normally aspirated	6	6¼ x 6½	1197	195 hp @ 1600 rpm
VIGILANT	Turbo—non-intercooled	6	5¼ x 6	779	195 hp @ 1800 rpm
	Normally aspirated	6	5¼ x 6	779	150 hp @ 1800 rpm
CUTWATER	Turbo—non-intercooled	6	4¼ x 5	426	120 hp @ 2000 rpm
	Normally aspirated	6	4¼ x 5	426	100 hp @ 2000 rpm
NAVIGATOR	Turbo—non-intercooled	6	4 x 4	302	85 hp @ 2000 rpm
	Normally aspirated	6	4 x 4	302	65 hp @ 2000 rpm

CRANKCASES Waukesha special alloy cast iron. Heavy main bearing bridges and thick oil pan mounting flanges and end walls—designed for maximum rigidity.

CYLINDER HEADS Valve-in-head high compression type. Clean-burning, controlled turbulence, patented spherical combustion chambers. Injection nozzles and combustion chambers removable from the outside.

CYLINDERS Removable wet sleeves of Waukesha special heat-resistant alloy iron in all engines except Cutwater and Navigator. Cutwater and Navigator have dry sleeves.

PISTONS Heavy-duty aluminum alloy with wedge-type compression rings. Oil control rings are parallel-side type. Pistons ribbed for extra strength; designed for even heat expansion.

CONNECTING RODS Forged steel, rifle-drilled for pressure oiling to pin bearings. Both ends precision-machined on parallel centers to Waukesha Quality Control standards. Pistons and pins assembled in matched sets.

CRANKSHAFTS Forged steel shafts are machined and precision ground in Waukesha's shops to rigid Quality Control standards. All crankshafts carefully balanced, with large diameter journals, for smooth power flow through entire power train to shaft and propeller.

MAIN and ROD BEARINGS Precision-type replaceable steel-backed bearing shells held by deep-section caps. Unusually large total bearing areas.

EXHAUST MANIFOLDS Water-cooled exhaust manifolds on all models.

GOVERNORS Automatically lubricated, mounted on injection pumps in all models, except the Defender and Reliance which use governors driven from the engine gear train.

FUEL SYSTEMS All Waukesha Marine Diesels equipped with Bosch injection pumps (except the Navigator which has the Roosa-Master pump), drawn steel injection lines and pintle-type injection nozzles. Combustion chamber assemblies removable from the outside.

LUBRICATING SYSTEMS Positive pressure gear-driven lubricating pumps and scavenger pumps. Pressure relief valves. Oil filters and coolers.

COOLING SYSTEMS Centrifugal pump cooling. Directed circulation, and coolant passage design eliminate hot spots and promote even heat control. Expansion tanks for all models. Engines engineered for either heat exchanger or keel cooling.

STARTING SYSTEMS Electric systems with starting motors, generators and regulators, available for all models. Air or hydraulic starting available.

POWER TAKE-OFF Front end power take-off for driving hydraulic pumps, auxiliary generators or air compressors, raw water and bilge pumps, winches and other marine accessories (except on Navigator Series).

REVERSE and REDUCTION GEARS Reverse and reduction gears in size and ratios to match all Waukesha marine engines and the service requirements.

CONTROLS and INSTRUMENTS Oil Pressure and water temperature gauges, starter switches, safety devices, instrument panels, and tachometer drives. Visible and audible alarms or facilities therefor, as specified.

OTHER ACCESSORIES and EQUIPMENT are available for special services.

WAUKESHA MOTOR COMPANY, WAUKESHA, WISCONSIN / New York • Tulsa • Los Angeles
Factories: Waukesha, Wisconsin and Clinton, Iowa